**Office of the Clerk/Treasurer**

W240N3065 Pewaukee Road
Pewaukee, WI 53072
(262) 691-0770 Fax 691-1798

# COMMON COUNCIL
# MEETING NOTICE AND AGENDA
## Monday, March 7, 2022
## 6:30 PM

Common Council Chambers ~ Pewaukee City Hall
W240 N3065 Pewaukee Road ~ Pewaukee, Wisconsin

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1. Call to Order and Pledge of Allegiance
2. Public Comment - Please limit your comments to two (2) minutes, if further time for discussion is needed please contact your District Alderperson prior to the meeting.
3. Consent Agenda
   - 3.1. Approval of the Common Council Meeting Minutes Dated February 21st, 2022
   - 3.2. Approval of the Accounts Payable Listing Dated March 7th, 2022
   - 3.3. Approve **Ordinance 22-03** *(Second Reading)* Related to Outdoor Entertainment Permit Revisions
4. **PUBLIC HEARING,** Discussion and Possible Action Regarding the Meadowbrook Farms Phase 2 Road Rehabilitation Project [Wagner]
   - 4.1 Accept the preliminary engineering report and special assessments.
   - 4.2 Award the contract to the lowest qualified bidder, Wolf Paving, in the amount of $934,842.75.
5. Discussion and Possible Action Regarding Duplainville Road Acquisition [Wagner]
   - 5.1 Accept and Approve Appraisals of Eight (8) Permanent Utility Easements as Detailed in the Summary Appraisal Reports Prepared by Single Source, Inc.
   - 5.2 Authorize the Offering Price for the Acquisition to the Property Owners.
   - 5.3 Approve **Resolution 22-03-09** Pertaining to the Relocation Order for the Duplainville Road Bridge Replacement.
6. Discussion and Possible Action to Award Northview Road Sidewalk Construction to the Lowest Qualified Bidder, Wolf Paving Company Inc., in the Amount of $100,324.00. [Wagner]
7. Discussion and Possible Action Regarding Release of the Woodleaf Reserve Phase 5 Grading Only Letter of Credit in the Amount of $701,623.68. [Wagner]
8. Discussion and Possible Action Regarding the Lindsay Road/Redford Boulevard Pedestrian Crossing. [Klein]
9. Discussion and Possible Action Regarding the Northmound Industrial Development
   - 9.1 Termination of the Dynamic Compaction Development Agreement.
   - 9.2 Approve the Amendment to the Developer's Agreement.
10. Discussion and Possible Action to Enact the 2022 Spring Weight Limits.

11. Discussion and Possible Action to Approve the Special Event Permit for Farmers' Market at Christ Evangelical Lutheran Church Located at W40 N3103 Pewaukee Road on Wednesdays from June 1st through September 28th, 2022 and Consider Waiving Fees [Tarczewski]

12. Public Comment - Please limit your comments to two (2) minutes, if further time for discussion is needed please contact your district Alderperson prior to the meeting.

13. Adjournment

Kelly Tarczewski
Clerk/Treasurer

March 4, 2022

**NOTICE**

It is possible that members of other governmental bodies of the municipality may be in attendance to gather information that may form a quorum. At the above stated meeting, no action will be taken by any governmental body other than the governmental body specifically referred to above in this notice.

Any person who has a qualifying disability under the Americans with Disabilities Act that requires the meeting or materials at the meeting to be in an accessible format must contact the Clerk/Treasurer, Kelly Tarczewski, at (262) 691-0770 three business days prior to the meeting so that arrangements may be made to accommodate your request.

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 3.1.

**DATE:** March 7, 2022

**DEPARTMENT:** Clerk/Treasurer

**PROVIDED BY:**

***SUBJECT:***

Approval of the Common Council Meeting Minutes Dated February 21st, 2022

***BACKGROUND:***

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

**ATTACHMENTS:**

Description

CC Minutes 2.21.2022

**In Attendance**:
Mayor Steve Bierce, Aldermen C. Brown, R. Grosch, P. Vetterkind, and J. Wamser. I. Clark and B. Dziwulski were absent and excused.

**Also in Attendance**:
Attorney S. Riffle, Administrator S. Klein, DPW Director M. Wagner, City Planner & Community Development Director N. Fuchs, Assistant Chief M. Hoppe and Clerk/Treasurer K. Tarczewski.

1. Call to Order and Pledge of Allegiance

   Mayor Bierce called the meeting to order at 6:30 p.m. and asked everyone to stand for the Pledge of Allegiance.

2. Public Comment - None.

3. Consent Agenda
   - 3.1 Approval of the Common Council Minutes Dated February 7th, 2022
   - 3.2. Approval of the Accounts Payable Listing Dated February 21st, 2022

   **A motion was made and seconded (J. Wamser, R. Grosch) to approve the consent agenda.** Motion Passed: 4-For, 0-Against.

4. Proclamation Presentation to Mr. Rick Fuhry for his Generous Contribution Towards the Splash Pad at the Sports Complex

   Mr. Fuchs invited Mr. Fuhry to the front and read the proclamation created in his honor. Mr. Fuhry expressed his gratitude and thanked the City for the opportunity to be a part of the planning of the splash pad.

5. Discussion Regarding **Ordinance 22-03** *(First Reading)* Related to Outdoor Entertainment Permit Revisions

   Mr. Fuchs stated the current outdoor entertainment permit is reviewed annually by Plan Commission and Common Council before approval. Mr. Fuchs noted staff is proposing to amend that and have a onetime review and approval with a Business Plan of Operation. He said it would be a more efficient process and it would eliminate the need for staff to mail out permits each year. Ms. Brown asked if it would come to Common Council if significant changes were requested. Mr. Fuchs stated changes would need to be applied for and they would be done as a staff review and all annual permits would be eliminated.

6. Discussion and Possible Action Regarding Woodleaf Reserve Phase 5
   - 6.1 Developers Agreement Amendment
   - 6.2 Establish the Value of the Letter of Credit

   Ms. Wagner stated this is the final phase of the Woodleaf Reserve Subdivision. She recommended the letter of credit value at $2,112,033.46 contingent on staff review. Ms. Wagner noted her and Attorney Rifle reviewed it and said it was in the packet for signature.

**A motion was made and seconded (C. Brown, J. Wamser) to approve the Developers Agreement and establish the value of the letter of credit.** Motion Passed: 4-For, 0-Against.

7. Discussion and Possible Action Regarding the Relocation **Resolution 22-02-03** for Busse Road Bridge Replacement

Ms. Wagner stated during design of the bridge replacement it was discovered that the bridge was out of the right-of-way. She said after discussion, it was decided that the bridge would be replaced in its existing location. She stated it is to the point where it needs to be finalized and the resolution will allow the City to acquire the land it currently sits in. She noted the property owner is in favor of this. Ms. Wagner asked to pass the Relocation Resolution so the City can start the acquisition process. Mr. Grosch asked if any land will be exchanged. Ms. Wagner said there is no determination on whether it will be vacated or who the land will belong to. Ms. Wagner stated it was a separate process and if it comes up it will come to Common Council. Attorney Riffle noted if the original owner can be determined, it is divided.

**A motion was made and seconded (J. Wamser, R. Grosch) to approve relocation Resolution 22-02-03**. Motion Passed: 4-For, 0-Against.

8. Discussion and Possible Action Regarding the Bluemound Water Main Extension Project
   - 8.1 Comfort **Resolution 22-02-04** Declaring Intent to Reimburse Expenditures
   - 8.2 Preliminary **Resolution 22-02-05** Declaring Intent to Exercise Special Assessment Powers
   - 8.3 Safe Drinking Water Loan Comfort **Resolution 22-02-06** Declaring Intent to Reimburse
   - 8.4 **Resolution 22-02-07** Authorizing M. Wagner to Represent the City of Pewaukee

Ms. Wagner stated the City is under a content order due to Well 5 radium issues. She said the City has been through the process of deciding what to do with the well. The City concluded it is not a viable long term well. Ms. Wagner noted the City opted to maintain a watermain loop to provide additional service to the area. She noted they are in the process of design to complete the looping down Bluemound Road. She noted the City will apply for a Safe Drinking Water loan for the project. She said the water main extension will service some properties and the City will be adopting a resolution to move forward with the special assessments. Ms. Wagner asked Common Council to approve four different resolutions. Mr. Grosch asked if the alternative design is under the river. Ms. Wagner stated she is working with the DNR and it looks like the best option is an open cut that will go across the river and railroad tracks.

**A motion was made and seconded (R. Grosch, P. Vetterkind) to accept and approve the recommendation of the Public Works Director.** Motion Passed: 4-For, 0-Against.

9. Discussion and Possible Action Regarding **Resolution 22-02-08** Disallowing the Peckarsky Claim

Attorney Riffle filed a notice of claim wanting the City Clerk to not follow a statute because he felt it was unconstitutional. He said it was referred to the City's insurance carrier appointed lawyer who advised the City to disallow the claim and it will shorten the time for the lawsuit. Attorney Riffle recommended the City follow the recommendation of the insurance lawyer. Mayor Bierce asked if other clerks received this claim. Attorney Riffle stated a few clerks in the area received the same notice.

**A motion was made and seconded (C. Brown, J. Wamser) to concur with the insurance company's recommendations and disallow Mr. Peckarsky's claim**. Motion Passed: 4-For, 0-Against.

10. Discussion and Possible Action to Appoint Brandon Bergman and Lloyd Bertram to the Fire Commission

    Mayor Bierce stated Chief Bierce recommended these two individuals and asked that the Council appoint them. Ms. Brown asked if there was any conflict of interest related to Mr. Bertram. Assistant Chief Hoppe stated no. He said the Fire Department sees Mr. Bertram's life experience as a benefit. He is aware of operations and feels he will be fair and honest in incidents where there may be issues.

    **A motion was made and seconded (J. Wamser, R. Grosch) to appoint Brandon Bergman and Lloyd Bertram to the Fire Commission**. Motion Passed: 4-For, 0-Against.

11. Public Comment - None.

12. Adjournment

    **A motion was made and seconded (C. Brown, R. Grosch) to adjourn the meeting at 6:54 p.m.** Motion Passed: 4-For, 0-Against.

Respectfully Submitted,

Kelly Tarczewski
Clerk/Treasurer

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 3.2.

**DATE:** March 7, 2022

**DEPARTMENT:** Clerk/Treasurer

**PROVIDED BY:**

***SUBJECT:***

Approval of the Accounts Payable Listing Dated March 7th, 2022

***BACKGROUND:***

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

**ATTACHMENTS:**

Description

A/P 3.7.2022

| Check Date | Check | Vendor Name | Description | Amount | |
|---|---|---|---|---|---|
| Bank 100 GENERAL FUND CHECKING | | | | | |
| 02/24/2022 | 659(E) | AT&T | SCADA/TELEMETARY | 119.30 | |
| | | | SCADA/TELEMETARY | 119.31 | |
| | | | | 238.61 | |
| 02/18/2022 | 664(E) | ADP, LLC | | 369.28 | |
| 02/18/2022 | 666(E) | DIVERSIFIED BENEFIT SERVICES, INC. | FLEX SPEND | 1,707.33 | |
| 02/23/2022 | 667(E) | DELTA DENTAL | DENTAL CLEARING | 1,196.00 | |
| | | | | 380.64 | |
| | | | | 1,576.64 | |
| 02/28/2022 | 668(E) | WISCONSIN RETIREMENT SYSTEM | WRS GENERAL EMPLYOYEES | 34,637.12 | |
| | | | WRS FIRE EMPLOYEES | 43,170.74 | |
| | | | WRS VOLUNTARY CONTRIBUTIONS | 174.88 | |
| | | | | 77,982.74 | |
| 02/18/2022 | 670(E) | ADP, LLC | | 1,275.30 | |
| 02/25/2022 | 671(E) | DIVERSIFIED BENEFIT SERVICES, INC. | FLEX SPEND | 718.29 | |
| 02/25/2022 | 672(E) | DIVERSIFIED BENEFIT SERVICES, INC. | FLEX SPEND | 1,527.00 | |
| 02/25/2022 | 673(E) | GREAT WEST TRUST - WDC | DEFERRED COMPENSATION | 3,034.08 | |
| | | | DEF COMP - ROTH 457 | 2,060.00 | |
| | | | | 5,094.08 | |
| 02/28/2022 | 674(E) | LEASING SERVICES | | 324.00 | |
| 02/18/2022 | 680(E) | LEASING SERVICES | | 52.00 | |
| | | | | 52.00 | |
| | | | | 104.00 | |
| 02/25/2022 | 682(E) | WELLS FARGO | | 1,140,000.00 | |
| | | | | 38,650.00 | |
| | | | | 1,178,650.00 | |
| 02/25/2022 | 683(E) | WELLS FARGO | | 22,075.00 | |
| 02/25/2022 | 684(E) | WELLS FARGO | | 19,000.00 | |
| | | | | 20,340.00 | |
| | | | | 39,340.00 | |
| 02/25/2022 | 685(E) | DEPOSITORY TRUST COMPANY | PRINCIPAL DEBT RETIREMENT | 22,826.24 | |
| | | | INTEREST/LONG TERM DEBT | 33,066.88 | |
| | | | INTEREST/LONG TERM DEBT | 11,199.38 | |
| | | | | 67,092.50 | |
| 03/03/2022 | 686(E) | WE ENERGIES | GROUP BILL 0706454789-00054 | 19,779.51 | |
| 02/18/2022 | 134227 | ASPEN HOMES | BLD 210275 OCCUPANCY BOND REFUND | 500.00 | |
| 02/18/2022 | 134228 | BIELINSKI HOMES | BOND REFUND | 0.00 | V |
| 02/18/2022 | 134229 | BRENNAN BERG | P&R 2022 BOOT REIMBURSEMENT | 158.10 | |
| 02/18/2022 | 134230 | CHERRIE LARSON | P&R KIDVENTURES SESSION 1 | 345.60 | |

| Check Date | Check | Vendor Name | Description | Amount |
|---|---|---|---|---|
| | | | P&R KIDVENTURES SESSION 1, 3 CO-OP KIDS | 103.68 |
| | | | | 449.28 |
| 02/18/2022 | 134231 | DIGITAL OFFICE SOLUTIONS | BLD XEROX USAGE | 22.75 |
| 02/18/2022 | 134232 | DIVERSIFIED BENEFIT SERVICES, INC. | FLEX ADMIN SERVICES FEB 2022 | 337.79 |
| 02/18/2022 | 134233 | EILEEN BUSKE | 2021 PROPERTY TAX REFUND | 2,121.21 |
| 02/18/2022 | 134234 | EMERGENCY LIGHTING & ELECTRONICS | FD STAFF CAR #2 RETRO FIT | 6,305.45 |
| 02/18/2022 | 134235 | FEI BEHAVIORAL HEALTH | HR QTRLY EAP | 608.40 |
| 02/18/2022 | 134236 | INSIGHT FS | P&R FIELD MARKING CHALK | 5,806.20 |
| 02/18/2022 | 134237 | KORNDOERFER HOMES | BOND REFUND | 0.00 V |
| 02/18/2022 | 134238 | LIFE-ASSIST INC | FD SAFETY RESTOCK | 157.64 |
| | | | FD FIELDWIPES | 266.76 |
| | | | FD EPINEPHRINE | 23.33 |
| | | | | 447.73 |
| 02/18/2022 | 134239 | OFFICE COPYING EQUIPMENT, LTD | CRT SHARP MX3571 CONTRACT | 2.98 |
| 02/18/2022 | 134240 | OFFICE DEPOT | BLD OFFICE SUPPLIES | 7.24 |
| | | | P&R OFFICE SUPPLIES | 16.54 |
| | | | | 23.78 |
| 02/18/2022 | 134241 | PARKSIDE MANAGEMENT | CT RESCINDED TAXES 0908996 | 2,472.63 |
| 02/18/2022 | 134242 | PARKSIDE MANAGEMENT | CT RESCINDED TAXES 0931999014 | 4,623.68 |
| 02/18/2022 | 134243 | PEWAUKEE SCHOOL DISTRICT | 2021 OMITTED TAXES | 4,231.52 |
| 02/18/2022 | 134244 | PREMIUM WATERS, INC | P&R WATER | 46.49 |
| | | | P&R WATER | 37.99 |
| | | | CRT WATER | 53.49 |
| | | | P&R CM WATER | (37.01) |
| | | | | 100.96 |
| 02/18/2022 | 134245 | PROHEALTH CARE MEDICAL ASSOCIATES | HR EXAMS | 50.00 |
| 02/18/2022 | 134246 | SHERWIN-WILLIAMS | P&R PAINT | 98.45 |
| 02/18/2022 | 134247 | SHIELD SOLUTIONS | FD HOSE END FOAMER | 435.00 |
| 02/18/2022 | 134248 | STATE OF WI COURT FINES & ASSMTS | CRT STATES SHARE OF COURT COSTS & ASSESS | 5,341.17 |
| 02/18/2022 | 134249 | TITAN PUBLIC SAFETY SOLUTIONS | IT TIPSS COURTS ANNUAL SUPPORT | 9,613.00 |
| 02/18/2022 | 134250 | US BANK EQUIPMENT FINANCE | ENG PLOTTER LEASE | 301.30 |
| 02/18/2022 | 134251 | VILLAGE OF PEWAUKEE | 2021 JOINT PARK & REC TRUE UP | 3,668.58 |
| 02/18/2022 | 134252 | WAUKESHA CO TECHNICAL COLLEGE | 2021 OMITTED TAXES | 414.48 |
| 02/18/2022 | 134253 | WAUKESHA CO TREASURER | 2021 OMITTED TAXES | 2,081.17 |
| | | | P&R LEARN TO SKATE | 720.00 |
| | | | CRT COUNTY JAIL ASSESSMENTS & DRIVER | 1,334.77 |
| | | | PLC 4TH QTR OT | 11,305.22 |
| | | | PLC MARCH 2022 POLICE SERVICES | 253,459.29 |
| | | | PLC JAN 2022 PRISONER HOUSING | 37.60 |
| | | | | 268,938.05 |
| 02/18/2022 | 134254 | WAUKESHA SCHOOL DISTRICT | 2021 OMITTED TAXES | 5,876.20 |
| 02/18/2022 | 134255 | WI SUPREME COURT | CRT CONTINUING JUDICIAL EDUCATION | 700.00 |
| 02/18/2022 | 134256 | YUVARAJA MANAVALAN | 2021 PROPERTY TAX REFUND | 5,306.96 |
| 02/21/2022 | 134257 | WAUKESHA CO DEPT OF PUBLIC WORKS | ENG TEMP SIGN APPLICATION | 155.00 |
| 02/25/2022 | 134258 | AARONIN STEEL SALES, INC. | HWY FLAT 3/8 X 2 | 9.54 |
| 02/25/2022 | 134259 | ABSOLUTE CONSTRUCTION | DPW BUILDING | 171,283.29 |
| 02/25/2022 | 134260 | AIR ONE EQUIPMENT | FD BOOTS | 400.00 |
| 02/25/2022 | 134261 | AT&T MOBILITY | FD AIR CARDS | 700.20 |
| 02/25/2022 | 134262 | AUCA CHICAGO MC LOCKBOX | HWY UNIFORMS | 88.40 |

| Check Date | Check | Vendor Name | Description | Amount |
|---|---|---|---|---|
| | | | HWY UNIFORMS | 88.40 |
| | | | | 176.80 |
| 02/25/2022 | 134263 | BARRIENTOS DESIGN & CONSULTING | DPW BUILDING | 21,440.14 |
| 02/25/2022 | 134264 | BRIAN ANDERSON | HWY 2022 TOOLS REIMBURSEMENT | 441.96 |
| 02/25/2022 | 134265 | BUMPER TO BUMPER HARTLAND | HWY FILTER | 73.23 |
| 02/25/2022 | 134266 | CHERRIE LARSON | P&R LEARN & PLAY SESSION 2 | 312.00 |
| | | | P&R SUPER SCIENTISTS | 302.40 |
| | | | | 614.40 |
| 02/25/2022 | 134267 | CINTAS | HWY SAFETY RESTOCK | 48.46 |
| | | | HWY GLOVES | 269.76 |
| | | | | 318.22 |
| 02/25/2022 | 134268 | CITY OF BROOKFIELD | SW SEWER CHARGES | 192,542.61 |
| 02/25/2022 | 134269 | CONLEY SERVICES, LLC | PUBLICATION FEES | 374.76 |
| 02/25/2022 | 134270 | CORE & MAIN LP | SW GASKET, DRAIN PLUNGER | 245.52 |
| 02/25/2022 | 134271 | COREY OIL | HWY CLEAR DIESEL | 1,055.48 |
| | | | HWY UNLEADED GASOLINE | 831.52 |
| | | | HWY CLEAR DIESEL | 1,438.12 |
| | | | | 3,325.12 |
| 02/25/2022 | 134272 | COSTCO MEMBERSHIP | CT COSTCO MEMBERSHIP | 60.00 |
| 02/25/2022 | 134273 | DAN PLAUTZ CLEANING SERVICE | CH CLEANING SERVICE | 2,873.00 |
| 02/25/2022 | 134274 | DEPT OF SAFETY & PROFESSIONAL | BLD STATE SEALS | 925.00 |
| 02/25/2022 | 134275 | EMERGENCY LIGHTING & ELECTRONICS | FD 2021 TAHOE | 22,293.02 |
| 02/25/2022 | 134276 | FABCON PRECAST, LLC | DPW BUILDING | 265,770.00 |
| 02/25/2022 | 134277 | FIRE SERVICE INC | FD VEHICLE REPAIRS KENWORTH | 5,160.30 |
| | | | FD VEHICLE REPAIR KENWORTH | 750.00 |
| | | | | 5,910.30 |
| 02/25/2022 | 134278 | FREDRICK, RICHARD | HWY 2022 BOOT REIMBURSEMENT | 200.00 |
| 02/25/2022 | 134279 | GRAINGER | SW FILTERS | 33.47 |
| 02/25/2022 | 134280 | HARTLAND OVERHEAD DOOR | FD FIX DOOR | 342.50 |
| 02/25/2022 | 134281 | HAWKINS, INC. | SW CHEMICALS | 294.49 |
| 02/25/2022 | 134282 | HEARTLAND BUSINESS SYSTEMS | IT NETWORK MONITORING SUPPORT | 92.00 |
| 02/25/2022 | 134283 | HUMPHREY SERVICE PARTS, INC | HWY BULB | 19.02 |
| | | | HWY CM HEAD LIGHT | (6.65) |
| | | | | 12.37 |
| 02/25/2022 | 134284 | INTERNATIONAL CODE COUNCIL | INSPECTORS COLLECTION | 793.56 |
| 02/25/2022 | 134285 | JAN DASSOW | P&R LINE DANCING SESSION 1 | 88.00 |
| 02/25/2022 | 134286 | KAESTNER AUTO ELECTRIC CO. | HWY TANK WASHER | 195.94 |
| 02/25/2022 | 134287 | KMB ELECTRIC | CH COMMON COUNCIL LIGHTS TO LED | 1,278.41 |
| 02/25/2022 | 134288 | Korndoerfer Homes | BD Bond Refund | 500.00 |
| 02/25/2022 | 134289 | LANGE ENTERPRISES, INC | HWY ROAD SIGN | 203.20 |
| 02/25/2022 | 134290 | LANNON STONE PRODUCTS | HWY STONE | 1,918.84 |
| 02/25/2022 | 134291 | LIFE-ASSIST INC | FD SAFETY RESTOCK | 512.85 |
| | | | FD CREDIT FOR NASOPHARYNGEAL AIRWAY | (82.50) |
| | | | | 430.35 |
| 02/25/2022 | 134292 | MATRIX TRUST COMPANY | LOAN REPAYMENT PD 2-25-22 | 50.00 |
| 02/25/2022 | 134293 | MATTHEW STEVENS | HWY 2022 BOOT REIMBURSEMENT | 200.00 |

| Check Date | Check | Vendor Name | Description | Amount |
|---|---|---|---|---|
| 02/25/2022 | 134294 | MENARDS | HWY POST MOUNT | 65.99 |
| | | | HWY DEERSKIN PALM GLOVE | 74.97 |
| | | | HWY ALUM WASHER, GROMMET TOOL KIT | 27.54 |
| | | | HWY GLOVES, FATIGUE MAT | 72.97 |
| | | | SW SPLASH RV MARINE | 9.98 |
| | | | SW TOOLS | 109.11 |
| | | | SW REPAIR SUPPLIES | 101.71 |
| | | | FD MULCH | 30.00 |
| | | | FD FUEL PREMIX AND CABLE TIES | 60.20 |
| | | | FD POST MOUNT, D/C LTRS/NUMBERS | 51.49 |
| | | | FD CLR REMOVER, HOOKS | 34.28 |
| | | | FD WASHERS AND RUBBER TIPS | 13.84 |
| | | | FD CYCLE OIL | 34.93 |
| | | | | 687.01 |
| 02/25/2022 | 134295 | MIDWEST METER INC. | SW METER BASE | 14,229.00 |
| 02/25/2022 | 134296 | MILLER-BRADFORD & RISBERG, INC | HWY LATCH | 11.50 |
| 02/25/2022 | 134297 | NANCY TEAS | P&R LINE DANCING SESSION 1 | 88.00 |
| 02/25/2022 | 134298 | NAPA | SW FILTERS | 77.34 |
| | | | SW OIL | 38.97 |
| | | | SW OIL | 10.36 |
| | | | SW FILTERS AND PARK SPLUGS | 108.38 |
| | | | SW FILTERS | 90.30 |
| | | | FD OIL | 47.55 |
| | | | FD DEF | 19.24 |
| | | | FD OIL | 95.10 |
| | | | | 487.24 |
| 02/25/2022 | 134299 | NATIONWIDE RETIREMENT SOLUTIONS | RETIREMENT PAYDATE 2-25-22 | 2,034.09 |
| 02/25/2022 | 134300 | OCCUPATIONAL HEALTH CENTERS OF THE | HR EXAMS | 125.00 |
| 02/25/2022 | 134301 | OFFICE DEPOT | CT OFFICE SUPPLIES | 47.22 |
| | | | CT OFFICE SUPPLIES, CH TISSUE | 695.75 |
| | | | | 742.97 |
| 02/25/2022 | 134302 | PITNEY BOWES GLOBAL | SW LEASE AND USAGE | 991.74 |
| 02/25/2022 | 134303 | POSITIVELY PEWAUKEE | POS PEWAUKEE TOURISM | 23,000.00 |
| 02/25/2022 | 134304 | PREMIUM WATERS, INC | HWY WATER | 53.25 |
| 02/25/2022 | 134305 | PUBLIC SERVICE COMMISSION OF WI | SW PSC DIRECT ASSESSMENT | 56.61 |
| 02/25/2022 | 134306 | TIME FOR ME | P&R MUSIC MAKERS | 315.00 |
| 02/25/2022 | 134307 | TRIPLE CROWN PRODUCTS | HWY CLOTHING | 543.13 |
| 02/25/2022 | 134308 | UNIFIRST CORP | FD MATS | 80.50 |
| 02/25/2022 | 134309 | VERIZON | SW TELEPHONE/SCADA | 403.17 |
| 02/25/2022 | 134310 | WAUKESHA PEWAUKEE CVB | 1ST QTR TOURISM | 62,000.00 |
| 02/25/2022 | 134311 | WELLSPRING CONSTRUCTION GROUP | DPW BUILDING | 195.11 |
| 02/25/2022 | 134312 | WI RURAL WATER ASSOCIATION | SW ANNUAL TECHNICAL CONFERENCE JM, DF | 260.00 |
| 02/25/2022 | 134313 | XEROX CORPORATION | SW METER READ CHGS | 248.97 |

100 TOTALS:

(2 Checks Voided)
Total of 101 Disbursements: 2,549,927.46

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 3.3.

**DATE:** March 7, 2022

**DEPARTMENT:** Planning

**PROVIDED BY:**

***SUBJECT:***

Approve **Ordinance 22-03** *(Second Reading)* Related to Outdoor Entertainment Permit Revisions

***BACKGROUND:***

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

**ATTACHMENTS:**

Description

Ordinance 22-03

**STATE OF WISCONSIN CITY OF PEWAUKEE WAUKESHA COUNTY**

**ORDINANCE NO. 22-03**

**AN ORDINANCE TO REPEAL AND RECREATE SECTION 11.02 OF THE CITY OF PEWAUKEE CODES AND ORDINANCES PERTAINING TO OUTDOOR ENTERTAINMENT**

**WHEREAS**; City of Pewaukee staff recently reviewed the outdoor entertainment permit process and have recommended various changes; and

**NOW, THEREFORE, BE IT RESOLVED** that the Common Council of the City of Pewaukee Waukesha County, Wisconsin, hereby ordains as follows:

**SECTION 1:**
11.02 Outdoor Entertainment of the City of Pewaukee municipal code is repealed and recreated to read:

**11.02 OUTDOOR ENTERTAIMENT**

(1) No commercial establishment may allow entertainment such as music, whether recorded or live, amplified or not; television; games or sporting activities, outside an enclosed structure without receiving approval of a Business Plan of Operation by the City Zoning Administrator. All uses and events shall comply with these standards:
   a. Outdoor uses and events shall be limited to 150 people or less. Uses and events for more than 150 people shall require a Special Event Permit under Section 11.07.
   b. Hours of outdoor activities shall be between 10:00 a.m. and 10:00 p.m. Sunday through Thursday and 10:00 a.m. and 11:00 p.m. Friday and Saturday.
   c. Sufficient restroom facilities and parking shall be provided as approved by the Zoning Administrator.
   d. Uses and events shall not disrupt or adversely affect traffic on adjacent public streets or interfere with access for emergency services.

(2) Existing uses with approved Outdoor Entertainment Permits may continue such uses under the same terms of the most recently approved Permit with no further approvals. Any modifications to the operations of such uses shall require approval of or an amendment to a Business Plan of Operation.

(3) Temporary allowance for special, limited occurrences to provide activities outside an enclosed structure during a specified period may be approved by the Common Council. The Common Council may impose restrictions on such uses.

(4) VIOLATIONS. Any person providing outdoor entertainment without an approved Business Plan of Operation, Special Events Permit or in violation of the terms of either shall be subject to the penalties in Chapter 25 of the City of Pewaukee Codes.

(5) REVOCATION. The Common Council may revoke the Business Plan of Operation for outdoor entertainment uses where such uses are deemed to adversely affect the adjacent property owners or the general public. Excessive noise levels, parking or traffic problems, complaints, and other such issues shall be grounds for immediate revocation of Permit.

**SECTION 2:** SEVERABILITY.
The several sections of this ordinance are declared to be severable. If any section or portion thereof shall be declared by a court of competent jurisdiction to be invalid, unlawful or unenforceable, such decision shall apply only to the specific section or portion thereof directly specified in the decision and shall not affect the validity of any other provisions, sections or portions thereof of the ordinance. The remainder of the ordinance shall remain in full force and effect. Any other ordinances the terms of which are in conflict with the provisions of this ordinance, are hereby repealed as to those terms that are in conflict.

**SECTION 3:** EFFECTIVE DATE.
This ordinance shall be in effect and in full force from and after its passage and publication or posting as provided by law.

Dated this 21st day of February 2022.

CITY OF PEWAUKEE

ATTEST:

_____
Steve Bierce, Mayor

_____
Kelly Tarczewski, City Clerk

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

**PUBLIC HEARING,** Discussion and Possible Action Regarding the Meadowbrook Farms Phase 2 Road Rehabilitation Project [Wagner]

***BACKGROUND:***

The City authorized the road rehabilitation project for Meadowbrook Farms Phase 2 as part of the 2022 budget.

Meadowbrook Farms Phase 2 includes Cattail Court and Sawgrass Lane. These roads are in poor condition and require rehabilitation. The project was bid to remove the existing asphalt pavement, complete any stone base repairs, repair damaged curbs, and place new asphaltic concrete pavement. The road assessment is $9,912.03 which exceeds the paving cap of $3,005.00.

In addition, we will be completing minor repairs to inlets, valve boxes, and manholes within the project area. There are also several areas of storm sewer lining that will save the integrity of the existing storm sewer that has minor cracking and deterioration.

***FINANCIAL IMPACT:***

The 2022 budget allocated $400,000 from the City Road Fund, $0 from the Storm Water Utility for the road project (inadvertently left out of budget), $75,000 from the Storm Water Utility for the Storm Inlets and Catch Basins, $50,000 from the Storm Sewer Maintenance, $80,000 from the Water Utility, and $200,000 from the Sewer Utility.

The total project cost including engineering, administration, and contingencies is $1,215,295.58. The allocation to each budget component is $545,161.83 for the City Road Fund, $608,649.60 for the Storm Water Utility, $8,331.83 for the Water Utility, and $53,152.32 for the Sewer Utility.

The City Road fund will be borrowing this year for this project. If necessary, Storm Water Utility will borrow for the remainder of the funds or reprogram from other projects.

***RECOMMENDED MOTION:***

Common Council award the Meadowbrook Farms Phase 2 Road Rehabilitation Contract to the lowest qualified bidder, Wolf Paving, Inc. in the amount of $934,842.75 and accept the preliminary engineers report, and special assessments.

**ATTACHMENTS:**

Description

Preliminary Engineers Roll
Picture Road Conditions
Bid Summary
Recommendation of Award

**Preliminary Report of the Engineer**

**On the Proposed Meadowbrook Farms Phase 2**

**Pavement Rehabilitation Assessments**

**In the City of Pewaukee**

In accordance with the resolution passed by the City Council of the City of Pewaukee, we herewith submit our report on assessments for the rehabilitation of Cattail Court, Sawgrass Court, and Sawgrass Lane, sanitary improvements along Cattail Court, Sawgrass Court, and Sawgrass Lane, drainage improvements along Cattail Court and Sawgrass Lane, and water main improvements along Cattail Court and Sawgrass Lane to be made in the City of Pewaukee. All data shown here is based on bid prices.

The report consists of the following Schedules:

Schedule "A": Summary of options for assessments and related costs.

Schedule "B": Legal descriptions and maps, dated February 2022, of all parcels within the assessment district.

Schedule "C": Estimated assessment for each parcel affected.

The properties against which the assessments are proposed are benefited and the improvements constitute an exercise of Police Powers.

Magdelene J. Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072
March 7, 2022

Prepared by:
Brian G. Leightner, E.I.T.
Civil Engineer
February 23, 2022

Schedule “A” – Meadowbrook Farms Phase 2

The City of Pewaukee is considering the pavement rehabilitation of Cattail Court, Sawgrass Court, and Sawgrass Lane. The improvements consist of road rehabilitation, curb repair, inlet and drainage repair, sanitary manhole repair, water valve repair, and related facilities.

The cost of the road improvements and 50% of curb repairs will be apportioned to all property owners abutting the street with direct or indirect access. The City of Pewaukee caps the road assessments to single family, duplex residential, and residential condominium properties. All other properties shall pay the full road assessment.

Inlet repairs, 50% of the curb repairs, and drainage improvements will be paid by the Storm Water Management Utility.

Sanitary sewer repairs will be paid by the Sewer Utility.

Water main repairs will be paid by the Water Utility.

It is recommended the costs for the improvements in Cattail Court, Sawgrass Court, and Sawgrass Lane be determined on a unit basis.

## UNIT RATE COMPUTATIONS

Road Rehabilitation Unit Rate – Meadowbrook Farms Phase 2

| | |
|---|---|
| Estimated Road Reconstruction Costs (see attached breakdown) | $419,355.25 |
| Engineering, Administration, & Contingencies | $125,806.58 |
| Total Estimated Road Reconstruction Assessable Costs | $545,161.83 |

$\frac{\$\ 545,161.83}{55\ \text{units}}$ = $ 9,912.03/unit as the road rehabilitation Unit Rate[1].

Storm Water Management – Meadowbrook Farms Phase 2

| | |
|---|---|
| Estimated Storm Utility Costs (see attached breakdown) | $468,192.00 |
| Engineering, Administration, & Contingencies | $140,457.60 |
| Total Estimated Storm Utility Costs | $608,649.60 |

Sanitary Sewer Utility – Meadowbrook Farms Phase 2

| | |
|---|---|
| Estimated Sanitary Sewer Costs (see attached breakdown) | $40,886.40 |
| Engineering, Administration, & Contingencies | $12,265.92 |
| Total Estimated Sanitary Sewer Costs | $53,152.32 |

Water Utility – Meadowbrook Farms Phase 2

| | |
|---|---|
| Estimated Water Utility Costs (see attached breakdown) | $6,409.10 |
| Engineering, Administration, & Contingencies | $1,922.73 |
| Total Estimated Water Utility Costs | $8,331.83 |

## COST SUMMARY

Cost Summary

| | |
|---|---|
| Total Project Costs | $1,215,295.58 |
| Total Road Assessable Costs (deduct) | $(165,275.00) |
| Sanitary Sewer Costs (deduct) | $ (53,152.32) |
| Storm Utility Costs (deduct) | $(608,649.60) |
| Water Utility Costs (deduct) | $ (8,331.83) |
| Net non-assessable and City Costs | $ 379,886.83 |

[1] A maximum assessment of $ 3,005.00 (2022 Pavement Cap) will be assessed to single family, duplex, and condominium residential properties.

Computation of Costs
Total Rehabilitation Project Costs

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 1 | Mobilization | L.S. | 1 | $15,660.00 | $ 15,660.00 |
| 2 | Traffic control | L.S. | 1 | $ 1,250.00 | $ 1,250.00 |
| 3 | Inlet sediment guards type "C" | EA. | 35 | $ 60.00 | $ 2,100.00 |
| 4 | Dust control using water (Ordered by Engineer) | 1000 GAL | 5 | $ 100.00 | $ 500.00 |
| 5 | Full depth saw cut pavement | L.F. | 75 | $ 2.25 | $ 168.75 |
| 6 | Full depth pavement milling | S.Y. | 12,760 | $ 2.60 | $ 33,176.00 |
| 7 | 1 1/4-inch crushed limestone T.B. base aggregate | TON | 319 | $ 21.00 | $ 6,699.00 |
| 8 | 3/4-inch crushed limestone T.B. base aggregate | TON | 91 | $ 30.00 | $ 2,730.00 |
| 9 | Excavation below subgrade | C.Y. | 1,105 | $ 17.80 | $ 19,669.00 |
| 10 | Excavation below subgrade backfill | TON | 2,210 | $ 18.90 | $ 41,769.00 |
| 11 | Geo-grid subgrade stabilization material. | S.Y. | 553 | $ 6.00 | $ 3,318.00 |
| 12 | 3 1/4-inch asphaltic concrete binder course | TON | 2,600 | $ 64.20 | $ 166,920.00 |
| 13 | Tack coat | GAL | 900 | $ 3.00 | $ 2,700.00 |
| 14 | 1 3/4-inch asphaltic concrete surface course | TON | 1,400 | $ 68.80 | $ 96,320.00 |
| 15 | Asphaltic concrete driveway replacement | S.F. | 160 | $ 13.50 | $ 2,160.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 240 | $ 45.50 | $ 10,920.00 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 266 | $ 45.50 | $ 12,103.00 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 938 | $ 45.50 | $ 42,679.00 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 350 | $ 9.80 | $ 3,430.00 |
| 20 | Repair Storm Structure 20.2-138 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 21 | Repair Storm Structure 20.2-096 Sawgrass Lane | EA. | 1 | $ 1,850.00 | $ 1,850.00 |
| 22 | Repair Storm Structure 20.2-137 Sawgrass Lane | EA. | 1 | $ 620.00 | $ 620.00 |
| 23 | Repair Storm Structure 20.2-135 Sawgrass Lane | EA. | 1 | $ 1,420.00 | $ 1,420.00 |
| 24 | Repair Storm Structure 20.2-163 Northwest end of pond | EA. | 1 | $ 820.00 | $ 820.00 |
| 25 | Repair Storm Structure 20.2-162 Northeast end of pond | EA. | 1 | $ 820.00 | $ 820.00 |
| 26 | Repair Storm Structure 20.2-126 Northeast end of pond | EA. | 1 | $ 820.00 | $ 820.00 |

Total Rehabilitation Project Costs – Continued

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 27 | Repair Storm Structure 20.2-164 Sawgrass Lane | EA. | 1 | $ 820.00 | $ 820.00 |
| 28 | Repair Storm Structure 20.2-125A Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 29 | Repair Storm Structure 20.2-125 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 30 | Repair Storm Structure 20.2-075 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 31 | Repair Storm Structure 20.2-074 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 32 | Repair Storm Structure 20.2-073 Sawgrass Lane | EA. | 1 | $ 1,850.00 | $ 1,850.00 |
| 33 | Repair Storm Structure 20.2-124 Sawgrass Lane | EA. | 1 | $ 620.00 | $ 620.00 |
| 34 | Repair Storm Structure 20.2 161 Sawgrass Lane | EA. | 1 | $ 1,245.00 | $ 1,245.00 |
| 35 | Repair Sanitary Manhole 20.2-017 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 36 | Repair Sanitary Manhole 20.2-016 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 37 | Repair Sanitary Manhole 20.2-015 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 38 | Repair Sanitary Manhole 20.2-014 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 39 | Repair Sanitary Manhole 20.2-008 Sawgrass Lane | EA. | 1 | $ 1,240.00 | $ 1,240.00 |
| 40 | Repair Sanitary Manhole 20.2-009 Sawgrass Lane | EA. | 1 | $ 1,770.00 | $ 1,770.00 |
| 41 | Repair Sanitary Manhole 20.2-012 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 42 | Repair Sanitary Manhole 20.2-013 Intersection of Cattail Court and Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 43 | Repair Sanitary Manhole 20.2-020 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 44 | Repair Sanitary Manhole 20.2-021 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 45 | Repair Sanitary Manhole 20.2-022 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 46 | Repair Sanitary Manhole 20.2-023 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 47 | Televised Sewer Pipe Cleaning and Inspection | L.F. | 3,660 | $ 7.25 | $ 26,535.00 |
| 48 | 12-inch Diameter CIPP lining | L.F. | 490 | $ 77.00 | $ 37,730.00 |

Total Rehabilitation Project Costs – Continued

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 49 | 15-inch Diameter CIPP lining | L.F. | 908 | $ 56.00 | $ 50,848.00 |
| 50 | 24-inch Diameter CIPP lining | L.F. | 437 | $ 126.00 | $ 55,062.00 |
| 51 | 27-inch Diameter CIPP lining | L.F. | 212 | $ 165.00 | $ 34,980.00 |
| 52 | 24×35-inch Diameter CIPP lining | L.F. | 96 | $ 195.00 | $ 18,720.00 |
| 53 | 30-inch Diameter CIPP lining | L.F. | 686 | $ 195.00 | $ 133,770.00 |
| 54 | Remove and Replace 18-inch Stomr Sewer from EOP 20.2-161 to MH 20.1-036 | L.F. | 175 | $ 127.00 | $ 22,225.00 |
| 55 | Remove and Replace 15-inch Storm Sewer from INL 20.1-035 to MH 20.1-036 | L.F. | 208 | $ 127.00 | $ 26,416.00 |
| 56 | Repair Water Valve 20.2-022 | EA. | 1 | $ 500.00 | $ 500.00 |
| 57 | Repair Water Valve20.2-020 | EA. | 1 | $ 500.00 | $ 500.00 |
| 58 | Repair Water Valve 20.2-017 | EA. | 1 | $ 500.00 | $ 500.00 |
| 59 | Repair Water Valve 20.2-019 | EA. | 1 | $ 925.00 | $ 925.00 |
| 60 | Repair Water Valve 20.2-019A | EA. | 1 | $ 925.00 | $ 925.00 |
| 61 | Repair Water Valve 20.2-013 | EA. | 1 | $ 500.00 | $ 500.00 |
| 62 | Repair Water Valve 20.2-014 | EA. | 1 | $ 1,195.00 | $ 1,195.00 |
| 63 | Repair Water Valve 20.2-021 | EA. | 1 | $ 1,195.00 | $ 1,195.00 |
| MA-1A | Sanitary Manhole Inspection- Remove Internal Seal for Inspection | EA. | 4 | $ 470.00 | $ 1,880.00 |
| MA-2A | Sanitary Manhole Inspection- Reinstall Internal Seal | EA. | 4 | $ 470.00 | $ 1,880.00 |
| MA-3A | Sanitary Manhole Inspection- Install Internal/External Seal | EA. | 4 | $ 850.00 | $ 3,400.00 |
| MA-4A | Sanitary Manhole Inspection- Chimney Repair | VI | 24 | $ 165.00 | $ 3,960.00 |
| MA-5A | Sanitary Mahole Inspection- New Frame and Cover | EA. | 4 | $ 1,145.00 | $ 4,580.00 |
| | Subtotal of Contract | | | | $ 934,842.75 |
| | Engineering, Administration, & Contingencies | | | | $ 280,452.83 |
| | Total Project Costs | | | | $1,215,295.58 |

Total Road Rehabilitation & Assessment Costs

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 1 | Mobilization | L.S. | 0.45 | $15,660.00 | $ 7,047.00 |
| 2 | Traffic control | L.S. | 0.45 | $ 1,250.00 | $ 562.50 |
| 3 | Inlet sediment guards type "C" | EA. | 17.5 | $ 60.00 | $ 1,050.00 |
| 4 | Dust control using water (Ordered by Engineer) | 1000 GAL | 5 | $ 100.00 | $ 500.00 |
| 5 | Full depth saw cut pavement | L.F. | 75 | $ 2.25 | $ 168.75 |
| 6 | Full depth pavement milling | S.Y. | 12760 | $ 2.60 | $ 33,176.00 |
| 7 | 1 1/4-inch crushed limestone T.B. base aggregate | TON | 319 | $ 21.00 | $ 6,699.00 |
| 8 | 3/4-inch crushed limestone T.B. base aggregate | TON | 91 | $ 30.00 | $ 2,730.00 |
| 9 | Excavation below subgrade | C.Y. | 1105 | $ 17.80 | $ 19,669.00 |
| 10 | Excavation below subgrade backfill | TON | 2210 | $ 18.90 | $ 41,769.00 |
| 11 | Geo-grid subgrade stabilization material. | S.Y. | 553 | $ 6.00 | $ 3,318.00 |
| 12 | 3 1/4-inch asphaltic concrete binder course | TON | 2600 | $ 64.20 | $166,920.00 |
| 13 | Tack coat | GAL | 900 | $ 3.00 | $ 2,700.00 |
| 14 | 1 3/4-inch asphaltic concrete surface course | TON | 1400 | $ 68.80 | $ 96,320.00 |
| 15 | Asphaltic concrete driveway replacement | S.F. | 160 | $ 13.50 | $ 2,160.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 120 | $ 45.50 | $ 5,460.00 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 133 | $ 45.50 | $ 6,051.50 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 469 | $ 45.50 | $ 21,339.50 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 175 | $ 9.80 | $ 1,715.00 |
| | Subtotal of Contract | | | | $419,355.25 |
| | Engineering, Administration, & Contingencies | | | | $125,806.58 |
| | Total Project Costs | | | | $545,161.83 |

Total Estimated Road Reconstruction Costs = $545,161.83

Total Units abutting the Road = 55 units

Computation of Unit Cost: $\frac{\$\ 545,161.83}{55\ \text{units}}$ = $ 9,912.03/unit

Use $ 9,912.03 as the Road Rehabilitation Unit Rate[1].

[1] A maximum assessment of $ 3,005.00 (2022 Pavement Cap) will be assessed to single family, duplex, and condominium residential properties.

Total Storm Water Utility Costs

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 1 | Mobilization | L.S. | 0.50 | $15,660.00 | $ 7,830.00 |
| 2 | Traffic control | L.S. | 0.50 | $ 1,250.00 | $ 625.00 |
| 3 | Inlet sediment guards type "C" | EA. | 17.5 | $ 60.00 | $ 1,050.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 120 | $ 45.50 | $ 5,460.00 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 133 | $ 45.50 | $ 6,051.50 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 469 | $ 45.50 | $ 21,339.50 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 175 | $ 9.80 | $ 1,715.00 |
| 20 | Repair Storm Structure 20.2-138 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 21 | Repair Storm Structure 20.2-096 Sawgrass Lane | EA. | 1 | $ 1,850.00 | $ 1,850.00 |
| 22 | Repair Storm Structure 20.2-137 Sawgrass Lane | EA. | 1 | $ 620.00 | $ 620.00 |
| 23 | Repair Storm Structure 20.2-135 Sawgrass Lane | EA. | 1 | $ 1,420.00 | $ 1,420.00 |
| 24 | Repair Storm Structure 20.2-163 Northwest end of pond | EA. | 1 | $ 820.00 | $ 820.00 |
| 25 | Repair Storm Structure 20.2-162 Northeast end of pond | EA. | 1 | $ 820.00 | $ 820.00 |
| 26 | Repair Storm Structure 20.2-126 Northeast end of pond | EA. | 1 | $ 820.00 | $ 820.00 |
| 27 | Repair Storm Structure 20.2-164 Sawgrass Lane | EA. | 1 | $ 820.00 | $ 820.00 |
| 28 | Repair Storm Structure 20.2-125A Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 29 | Repair Storm Structure 20.2-125 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 30 | Repair Storm Structure 20.2-075 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 31 | Repair Storm Structure 20.2-074 Sawgrass Lane | EA. | 1 | $ 1,390.00 | $ 1,390.00 |
| 32 | Repair Storm Structure 20.2-073 Sawgrass Lane | EA. | 1 | $ 1,850.00 | $ 1,850.00 |
| 33 | Repair Storm Structure 20.2-124 Sawgrass Lane | EA. | 1 | $ 620.00 | $ 620.00 |
| 34 | Repair Storm Structure 20.2 161 Sawgrass Lane | EA. | 1 | $ 1,245.00 | $ 1,245.00 |

Total Storm Water Utility Costs – Continued

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 47 | Televised Sewer Pipe Cleaning and Inspection | L.F. | 3660 | $ 7.25 | $ 26,535.00 |
| 48 | 12-inch Diameter CIPP lining | L.F. | 490 | $ 77.00 | $ 37,730.00 |
| 49 | 15-inch Diameter CIPP lining | L.F. | 908 | $ 56.00 | $ 50,848.00 |
| 50 | 24-inch Diameter CIPP lining | L.F. | 437 | $ 126.00 | $ 55,062.00 |
| 51 | 27-inch Diameter CIPP lining | L.F. | 212 | $ 165.00 | $ 34,980.00 |
| 52 | 24×35-inch Diameter CIPP lining | L.F. | 96 | $ 195.00 | $ 18,720.00 |
| 53 | 30-inch Diameter CIPP lining | L.F. | 686 | $ 195.00 | $133,770.00 |
| 54 | Remove and Replace 18-inch Stomr Sewer from EOP 20.2-161 to MH 20.1-036 | L.F. | 175 | $ 127.00 | $ 22,225.00 |
| 55 | Remove and Replace 15-inch Storm Sewer from INL 20.1-035 to MH 20.1-036 | L.F. | 208 | $ 127.00 | $ 26,416.00 |
| | Subtotal of Contract | | | | $468,192.00 |
| | Engineering, Administration, & Contingencies | | | | $140,457.60 |
| | Total Project Costs | | | | $608,649.60 |

Total Sanitary Sewer Utility Costs

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 1 | Mobilization | L.S. | 0.04 | $15,660.00 | $ 626.40 |
| 2 | Traffic control | L.S. | 0.04 | $ 1,250.00 | $ 50.00 |
| 35 | Repair Sanitary Manhole 20.2-017 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 36 | Repair Sanitary Manhole 20.2-016 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 37 | Repair Sanitary Manhole 20.2-015 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 38 | Repair Sanitary Manhole 20.2-014 Cattail Court | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 39 | Repair Sanitary Manhole 20.2-008 Sawgrass Lane | EA. | 1 | $ 1,240.00 | $ 1,240.00 |
| 40 | Repair Sanitary Manhole 20.2-009 Sawgrass Lane | EA. | 1 | $ 1,770.00 | $ 1,770.00 |
| 41 | Repair Sanitary Manhole 20.2-012 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 42 | Repair Sanitary Manhole 20.2-013 Intersection of Cattail Court and Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 43 | Repair Sanitary Manhole 20.2-020 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 44 | Repair Sanitary Manhole 20.2-021 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 45 | Repair Sanitary Manhole 20.2-022 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| 46 | Repair Sanitary Manhole 20.2-023 Sawgrass Lane | EA. | 1 | $ 2,150.00 | $ 2,150.00 |
| MA-1A | Sanitary Manhole Inspection- Remove Internal Seal for Inspection | EA. | 4 | $ 470.00 | $ 1,880.00 |
| MA-2A | Sanitary Manhole Inspection- Reinstall Internal Seal | EA. | 4 | $ 470.00 | $ 1,880.00 |
| MA-3A | Sanitary Manhole Inspection- Install Internal/External Seal | EA. | 4 | $ 850.00 | $ 3,400.00 |
| MA-4A | Sanitary Manhole Inspection- Chimney Repair | VI | 24 | $ 165.00 | $ 3,960.00 |
| MA-5A | Sanitary Mahole Inspection- New Frame and Cover | EA. | 4 | $ 1,145.00 | $ 4,580.00 |
| | Subtotal of Contract | | | | $40,886.40 |
| | Engineering, Administration, & Contingencies | | | | $12,265.92 |
| | Total Project Costs | | | | $53,152.32 |

Total Estimated Sanitary Sewer Utility Costs = $ 53,152.32

Total Water Utility Costs

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| 1 | Mobilization | L.S. | 0.01 | $15,660.00 | $ 156.60 |
| 2 | Traffic control | L.S. | 0.01 | $ 1,250.00 | $ 12.50 |
| 56 | Repair Water Valve 20.2-022 | EA. | 1 | $ 500.00 | $ 500.00 |
| 57 | Repair Water Valve20.2-020 | EA. | 1 | $ 500.00 | $ 500.00 |
| 58 | Repair Water Valve 20.2-017 | EA. | 1 | $ 500.00 | $ 500.00 |
| 59 | Repair Water Valve 20.2-019 | EA. | 1 | $ 925.00 | $ 925.00 |
| 60 | Repair Water Valve 20.2-019A | EA. | 1 | $ 925.00 | $ 925.00 |
| 61 | Repair Water Valve 20.2-013 | EA. | 1 | $ 500.00 | $ 500.00 |
| 62 | Repair Water Valve 20.2-014 | EA. | 1 | $ 1,195.00 | $1,195.00 |
| 63 | Repair Water Valve 20.2-021 | EA. | 1 | $ 1,195.00 | $1,195.00 |
| | Subtotal of Contract | | | | $6,409.10 |
| | Engineering, Administration, & Contingencies | | | | $1,922.73 |
| | Total Project Costs | | | | $8,331.83 |

Total Estimated Water Utility Costs = $ 8,331.83

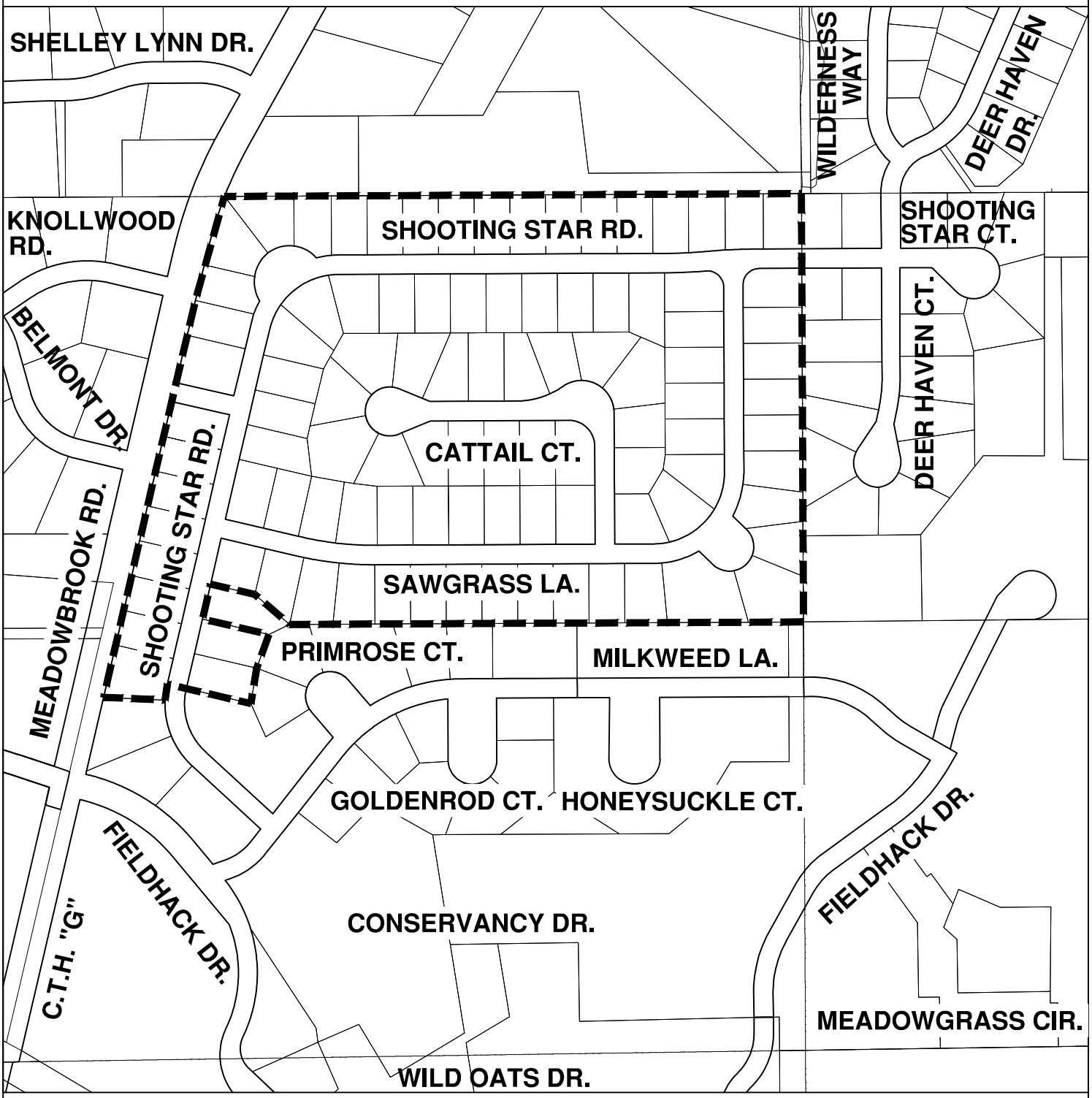
February 22, 2022

All that part of the NW ¼ of Section 20, Township 7 North, Range 19 East, in the City of Pewaukee, Waukesha County, Wisconsin. Bound and Described as Follows:

Commencing at the SE corner of Lot 27 Block 3 of Phase III Meadowbrook Farms of Meadowbrook Estates Subdivision, Also Being a Point on the East Line of the NW ¼ of Section 20, T.7N., R19E, 1316.52 feet North of the SE corner of Said NW ¼, also being the point of beginning of parcel to be described; thence N0°16'15"W Along the East Line of said NW 1/4 , 1319.53 Feet to the NE Corner of said NW ¼ ; Thence N 89°43'04" W Along the North Line of Said NW ¼, 1777.06 Feet to a point on the East R/W Line of C.T.H. "G"; Thence SW Along Said East R/W Line Along the Arc of a Curve Whose Center is to the SE, Whose Cord Bears S17°35'10"W, 192.81 Feet; Thence S13°05'04"W, Along the Said East R/W Line, 1395.58 Feet, to the SW Corner of Lot 8 Block 4 Phase II Meadowbrook Farms of Meadowbrook Estates; Thence S 87°24'34" E, Along the South Line of Said Lot 8, 189.52 Feet, to the SE corner of Said Lot 8, Also Being a Point in the west R/W Line of Shooting Star Rd.; Thence Along Said West R/W Line Along the Arc of a curve, Whose Center is to the SE, Whose Cord Bears N7°50'15"E, 49.59 Feet; Thence S76°54'56"E, 284.22 Feet, To the SE Corner of Lot 14 Block 3 of Phase II Meadowbrook Farms of Meadowbrook Estates; Thence N 9°24'40" E 110.23 Feet to the SE Corner of Lot 13 of said Subdivision; Thence N 19°49'28" E, to the NE Corner of Said Lot 13;Thence N 76°54'56" W, 210.00 Feet to the NW Corner of Said Lot 13, Also being a point on the East R/W Line of Shooting Star Rd.; Thence N 13°05'04" E, Along Said East R/W Line, 110.00 Feet, to the SW Corner of Lot 1 Block 3 of Phase I of Meadowbrook Farms of Meadowbrook Estates; Thence S 76°54'56" E, 140.00 Feet, To The SW Corner of Lot 2 Block 3 of Said Subdivision; Thence S49°19'15"E 141.60 Feet to the SE corner of said Lot 2, also being the South line of Phase I Meadowbrook Farms of Meadowbrook Estates Subdivision; Thence N89°43'04"E 1584.27 Feet, Along Said South Line to the SE Corner of Lot 27 Block 3 of Phase III Meadowbrook Farms of Meadowbrook Estates, Being the point of Beginning.

Dave Geis
Senior Engineering Technician
City of Pewaukee

MEADOWBROOK FARMS PHASE 2
ROAD RESURFACING
RD-22-57552
ROAD ASSESSMENT
CITY OF PEWAUKEE
WAUKESHA COUNTY, WISCONSIN




CITY OF PEWAUKEE

LEGEND

ROAD ASSESSMENT AREA BOUNDARY

N
W E
S

0 100 200 300 400 500 1000
SCALE IN FEET

DATE: FEBRUARY 22, 2022

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



**Outlots are divided equally among all lots in the Meadowbrook Farms Subdivision per the plat.

| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 1 | JAMES L STEIN AND JUDITH A STEIN<br>W268N2161 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5467 | PWC 0942013 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 2 | RICHARD WILKINSON AND HEIDI C GUTENKUNST<br>W268N2152 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942014 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 3 | MICHELE PUNZO AND MARY JO PUNZO<br>W268N2134 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942015 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 4 | CHRISTOPHER ANDRESKI AND JEAN ANDRESKI<br>W268N2114 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5466 | PWC 0942016 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 5 | JAMES HOBBICK AND DAWN HOBBICK<br>W268N2110 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942017 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 6 | MICHAEL J ROMMES AND LEAH A ROMMES<br>N20W26792 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942018 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 7 | YANNICK M RATNAYAKE AND MAUREEN A RATNAYAKE<br>N20W26786 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942019 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 8 | TROY S LUCEY AND BETH K LUCEY<br>N20W26758 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942020 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 9 | KEVIN J MOSER AND NICOLE M MOSER<br>N20W26738 SAWGRASS LN<br>PEWAUKEE WI 53072-5459 | PWC 0942021 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 10 | JAY ANTCZAK AND JEANINE ANTCZAK<br>N20W26724 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942022 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 11 | TIMOTHY ALFT AND KELLY ACKMANN<br>N20W26698 SAWGRASS LN<br>PEWAUKEE WI 53072-5458 | PWC 0942023 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 12 | JAMES COTTRILL AND MARY COTTRILL<br>N20W26676 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942024 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



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| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 13 | DANIEL R KIEFFER AND KATHRINE S KIEFFER | PWC 0942025 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26654 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5458 | | | | | | | |
| 14 | ZACHARY BILLINGS AND KARI BILLINGS | PWC 0942026 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W266N2109 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5461 | | | | | | | |
| 15 | ROBERT J WELCENBACH AND LATHDAVONE LEAH WELCENBACH | PWC 0942027 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26633 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5464 | | | | | | | |
| 16 | SCOTT WILDMAN AND KAREN WILDMAN | PWC 0942028 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26651 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 17 | KEVIN P OBRIEN AND LESLIE L OBRIEN | PWC 0942029 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26677 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 18 | DANIEL F WILKINSON AND ELIZAVETH A WILKINSON | PWC 0942030 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26693 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5464 | | | | | | | |
| 19 | MICHAEL J GREGUSKA | PWC 0942031 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26719 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 20 | DANIEL T AND RACHEL O'CONNOR REVOCABLE TRUST | PWC 0942032 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26759 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 21 | MARK A AND MARIAN E GRUSZKOWSKI JOINT REVOCABLE TRUST | PWC 0942033 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26773 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5465 | | | | | | | |
| 22 | SHARON C HATHAWAY REVOCABLE TRUST | PWC 0942034 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26781 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5465 | | | | | | | |
| 23 | GREGORY MORODER AND KATHERIN MORODER | PWC 0942035 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26756 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



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| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 24 | JOSEPH I SARIC AND REBECCA SARIC | PWC 0942036 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26724 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5465 | | | | | | | |
| 25 | LOWELL H BEEDE | PWC 0942037 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26712 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5465 | | | | | | | |
| 26 | JOHN & CAROL SCHAEFER TRUST | PWC 0942038 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26682 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 27 | WLODEK ZAWADZKI AND ELIZABETH ZAWADZKI | PWC 0942039 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26666 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 28 | CHRISTINE M WIESMUELLER | PWC 0942040 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26644 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5463 | | | | | | | |
| 29 | BLASER LIVING TRUST | PWC 0942041 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N21W26622 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 30 | KELSEY PAPALA AND MATTHEW PAPALA | PWC 0942042 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W266N2150 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5462 | | | | | | | |
| 31 | CRAIG M WAHLGREN | PWC 0942043 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W266N2138 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 32 | ROSEMARY TOBIASZ | PWC 0942044 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W266N2118 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5462 | | | | | | | |
| 33 | BENJAMIN BRUSKO AND ELIZABETH BRUSKO | PWC 0942045 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W266N2106 CATTAIL CT | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5462 | | | | | | | |
| 34 | OLIVER DEGNAN AND DEBORAH DEGNAN | PWC 0942046 | | | | | | $ 30.05 |
| | N20W26797 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5460 | | | | | | | |
| 35 | FRANKLIN RITTER AND WANDA RITTER | PWC 0942047 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26795 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



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| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 36 | ELAINE L ERICKSON | PWC 0942048 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26783 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 37 | STEWART AMELL AND CHERYL AMELL | PWC 0942049 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26757 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5460 | | | | | | | |
| 38 | LIVA J EDWARDS AND CRAIG A NILSEN | PWC 0942050 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26731 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5460 | | | | | | | |
| 39 | GEORGE C NELSON AND REJEANA R NELSON | PWC 0942051 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26713 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 40 | SHELTON TRUST DATED JUNE 30, 1998 | PWC 0942052 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26699 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5457 | | | | | | | |
| 41 | JASON R OVERMIER | PWC 0942053 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26681 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 42 | LEE CLEMENT AND ROSANNE CLEMENT | PWC 0942054 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26669 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 43 | JASON E & RACHEL A BARTLEY REVOCABLE LIVING TRUST | PWC 0942055 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26657 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 44 | ROY BRENT AND DEBORAH BRENT | PWC 0942056 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26623 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 45 | JAMES NEVERMANN AND JUDITH NEVERMANN | PWC 0942057 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N20W26611 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5457 | | | | | | | |
| 46 | THOMAS FISCHER AND DEBRA FISCHER | PWC 0942058 | | | | | | $ 30.05 |
| | W268N2091 SHOOTING STAR RD | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 47 | DAVID L BERLOWSKI AND CLARE L SCHAEFFER | PWC 0942059 | | | | | | $ 30.05 |
| | W268N2089 SHOOTING STAR RD | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



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| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 48 | BRIAN AND CHRISTINE YEHLE REVOCABLE TRUST DATED APRIL 9, 2014<br>W268N2065 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5468 | PWC 0942060 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 49 | MARTIN VANHULLE AND CHRISTINE VANHULLE<br>W268N2043 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942061 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 50 | JASON M AND HEIDI S SCHRADER JOINT REVOCABLE LIVING TRUST<br>W268N2021 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5468 | PWC 0942062 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 51 | EDWARD DOW AND STEFANIE DOW<br>W268N1988 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942063 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 52 | RUSSEL J BOIE AND PAULETTE A BOIE<br>W268N1964 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942064 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 53 | RAMANI RAMCHANDRAN<br>W268N1999 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942078 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 54 | BARBARA SWEET<br>W268N1983 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942079 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 55 | MILTON BRITT LYLA BRITT<br>W268N1961 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942080 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 56 | KEVAN G TOBY AND ALEXIS A TOBY<br>W268N2205 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5494 | PWC 0942095 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 57 | RICHARD FENGER<br>W268N2221 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5494 | PWC 0942096 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 58 | NEIL KELLER AND LYNN KELLER<br>W268N2223 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5494 | PWC 0942097 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



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| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 59 | JAMES J LINDLAU<br>N22W26794 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942098 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 60 | JASON M SCHAAK AND ANN E SCHAAK<br>N22W26788 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942099 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 61 | PHILLIP J KUEHL AND LISA A KUEHL REVOCABLE TRUST<br>N22W26772 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942100 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 62 | KATHARINA IKUSZ<br>N22W26746 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942101 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 63 | WALLNER JOINT REVOCABLE TRUST DATED APRIL 28, 2000<br>N22W26732 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942102 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 64 | RONALD WISNIEWSKI AND CRISTI WISNIEWSKI<br>N22W26696 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942103 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 65 | ALLEN ZIPPERER AND GRETCHEN ZIPPERER<br>N22W26684 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942104 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 66 | JAMES A HORMAN AND SUSAN A HORMAN<br>N22W26672 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942105 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 67 | TRUST AGREEMENT OF JAMES AND KATHLEEN KEES<br>N22W26648 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942106 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 68 | DONNA SCHOESSOW<br>N22W26624 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942107 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 69 | JOEL SUSLER AND KATIE SUSLER<br>N22W26590 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942108 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 70 | CHRISTOPHER G AND ROSEMARY T LESKO<br>N22W26570 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942109 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



**Outlots are divided equally among all lots in the Meadowbrook Farms Subdivision per the plat.

| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 71 | DAVID SCHILL AND JODIE SCHILL<br>N22W26550 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942110 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 72 | DANIEL G ZIMMER AND CARLA A ZIMMER<br>N22W26520 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5474 | PWC 0942111 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 73 | DENNIES E SCHENDEL AND BRENDA M SCHENDEL<br>N22W26500 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942112 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 74 | PATRICIA M SCOTT<br>W265N2083 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942113 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 75 | JOHN E DWYER AND ANN M DWYER<br>W265N2121 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942114 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 76 | N BRUCE CLEMENT AND SHARON CLEMENT<br>W265N2145 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942115 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 77 | DEAN M NATTERSTAD AND KAREN R NATTERSTAD<br>W265N2179 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942116 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 78 | ADNAN ARIF AND SHEHLA GULL<br>W265N2197 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942117 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 79 | WILLIAM MANN JR AND AMY MANN<br>W265N2227 SAWGRASS LN<br>PEWAUKEE WI 53072 | PWC 0942118 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 80 | NORMAN G MACKOWEY<br>N22W26579 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942119 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 81 | ROBERT D HALVERSON AND ANN HALVERSON<br>N22W26593 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942120 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |
| 82 | JOHNNY SANTIAGO AND LYNDA L SANTIAGO<br>N22W26619 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942121 | <br>2022 Outlot | <br>1 | <br>$ 30.05 | <br>$ 30.05 | <br>$ 30.05 | $ 30.05 |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



**Outlots are divided equally among all lots in the Meadowbrook Farms Subdivision per the plat.

| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 83 | NEIL & SHARON HAWES LIVING TRUST<br>N22W26649 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942122 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 84 | MELISSA R BAUER<br>N22W26663 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942123 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 85 | JOSHUA W BROWN AND KATHERINE A BROWN<br>N22W26677 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942124 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 86 | ROBERT J & CHERYL L BURGER REVOCABLE TRUST DATED OCTOBER 15, 2014<br>N22W26691 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5492 | PWC 0942125 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 87 | JOANNE CARPENTIER-KASNER<br>N22W26727 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942126 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 88 | CHRISTIE JOINT REVOCABLE TRUST<br>N22W26739 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942127 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 89 | WAYNE W KRAUSE AND ELLA M KRAUSE JOINT IRREVOCABLE LIVING TRUST<br>N22W26761 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5493 | PWC 0942128 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 90 | THE MICHAEL R BEST AND DONNA L BEST LIVING TRUST<br>W268N2220 SHOOTING STAR RD<br>PEWAUKEE WI 53072-5494 | PWC 0942129 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 91 | ANTHONY J GONZALEZ AND JOANNA L GROH<br>W268N2208 SHOOTING STAR RD<br>PEWAUKEE WI 53072 | PWC 0942130 | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | $ 30.05 |
| 92 | WILLIAM D LAU AND LINDA D LAU REVOCABLE TRUST<br>W265N2038 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942131 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |
| 93 | STEVEN M BAUDO AND SUSAN M BAUDO<br>W265N2086 SAWGRASS LN<br>PEWAUKEE WI 53072-5428 | PWC 0942132 | Road Reconstruction<br>2022 Outlot | 1<br>1 | $ 9,912.03<br>$ 30.05 | $ 9,912.03<br>$ 30.05 | $ 3,005.00<br>$ 30.05 | $ 3,035.05 |

SCHEDULE C
PRELIMINARY ASSESSMENT ROLL
MEADOWBROOK FARMS PHASE 2 2022 PAVING
RD-22-57552



**Outlots are divided equally among all lots in the Meadowbrook Farms Subdivision per the plat.

| NO. | OWNER'S NAME AND ADDRESS | TAX KEY NO. | DESCRIPTION | UNIT | COST/UNIT | COST | ASSESSMENT CAP | TOTAL ASSESSMENT |
|---|---|---|---|---|---|---|---|---|
| 94 | KENNETH A MILLER AND YVONNE M MILLER | PWC 0942133 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W265N2094 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 95 | KEN E SARNSTROM | PWC 0942134 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W275N4022 ISHNALA TRL | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-2265 | | | | | | | |
| 96 | DAVID M RIPLEY AND LAURIE A DULITZ | PWC 0942135 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W265N2144 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5428 | | | | | | | |
| 97 | NICHOLAS JOHNSON | PWC 0942136 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W265N2184 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072-5428 | | | | | | | |
| 98 | SCOTT W DOWNEY AND MARY LYNN DOWNEY | PWC 0942137 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W265N2196 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 99 | SAAD AHMED SIROHEY AND AISHA MUNIR | PWC 0942138 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | W265N2224 SAWGRASS LN | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| 100 | THOMAS C PIACSEK | PWC 0942139 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $ 3,005.00 | $ 3,035.05 |
| | N22W26515 SHOOTING STAR RD | | 2022 Outlot | 1 | $ 30.05 | $ 30.05 | $ 30.05 | |
| | PEWAUKEE WI 53072 | | | | | | | |
| | LOT OWNERS OF PHASE III MEADOWBROOK FARMS OF | | | | | | | |
| 101 | MEADOWBROOK ESTATES | PWC 0942140 | Road Reconstruction | 1 | $ 9,912.03 | $ 9,912.03 | $3,005.00 | $ 3,005.00 |
| | N/A | | | | | | | ** |
| | N/A N/A N/A | | | | | | | |
| | TOTAL CONTRIBUTION IN AID OF 2022 ROAD RECONSTRUCTION | | | 55 | | | | $ 165,275.00 |
| | TOTAL CONTRIBUTION IN AID OF 2022 ROAD RECONSTRUCTION (OUTLOT) | | | 100 | | | | |

The properties against which contributions in aid of construction are proposed are benefited and the improvements constitute an exercise in Police Powers.


STOP















Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| | **Contract A-Meadowbrook Farms Phase 2** | | | | | | | | | | |
| 1 | Mobilization | L.S. | 1 | $27,000.00 | $27,000.00 | $15,660.00 | $15,660.00 | $30,000.00 | $30,000.00 | $13,500.00 | $13,500.00 |
| 2 | Traffic control | L.S. | 1 | $4,400.00 | $4,400.00 | $1,250.00 | $1,250.00 | $5,191.75 | $5,191.75 | $8,900.00 | $8,900.00 |
| 3 | Inlet sediment guards type "C" | EA. | 35 | $58.00 | $2,030.00 | $60.00 | $2,100.00 | $60.00 | $2,100.00 | $56.11 | $1,963.85 |
| 4 | Dust control using water (Ordered by Engineer) | 1000 GAL | 5 | $100.00 | $500.00 | $100.00 | $500.00 | $26.06 | $130.30 | $100.00 | $500.00 |
| 5 | Full depth saw cut pavement | L.F. | 75 | $4.00 | $300.00 | $2.25 | $168.75 | $0.50 | $37.50 | $5.00 | $375.00 |
| 6 | Full depth pavement milling | S.Y. | 12,760 | $3.65 | $46,574.00 | $2.60 | $33,176.00 | $4.00 | $51,040.00 | $2.95 | $37,642.00 |
| 7 | 1 1/4-inch crushed limestone T.B. base aggregate | TON | 319 | $21.00 | $6,699.00 | $21.00 | $6,699.00 | $24.74 | $7,892.06 | $26.00 | $8,294.00 |
| 8 | 3/4-inch crushed limestone T.B. base aggregate | TON | 91 | $30.00 | $2,730.00 | $30.00 | $2,730.00 | $24.76 | $2,253.16 | $26.00 | $2,366.00 |
| 9 | Excavation below subgrade | C.Y. | 1,105 | $17.80 | $19,669.00 | $17.80 | $19,669.00 | $29.31 | $32,387.55 | $43.75 | $48,343.75 |
| 10 | Excavation below subgrade backfill | TON | 2,210 | $18.90 | $41,769.00 | $18.90 | $41,769.00 | $24.77 | $54,741.70 | $26.85 | $59,338.50 |
| 11 | Geo-grid subgrade stabilization material. | S.Y. | 553 | $6.00 | $3,318.00 | $6.00 | $3,318.00 | $2.48 | $1,371.44 | $9.00 | $4,977.00 |
| 12 | 3 1/4-inch asphaltic concrete binder course | TON | 2,600 | $56.25 | $146,250.00 * | $64.20 | $166,920.00 | $53.50 | $139,100.00 | $65.15 | $169,390.00 |
| 13 | Tack coat | GAL | 900 | $2.70 | $2,430.00 | $3.00 | $2,700.00 | $2.00 | $1,800.00 | $3.00 | $2,700.00 |
| 14 | 1 3/4-inch asphaltic concrete surface course | TON | 1,400 | $69.00 | $96,600.00 | $68.80 | $96,320.00 | $65.00 | $91,000.00 | $70.85 | $99,190.00 |
| 15 | Asphaltic concrete driveway replacement | S.F. | 160 | $10.00 | $1,600.00 | $13.50 | $2,160.00 | $9.77 | $1,563.20 | $16.00 | $2,560.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 240 | $36.00 | $8,640.00 | $45.50 | $10,920.00 | $51.50 | $12,360.00 | $49.49 | $11,877.60 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 266 | $37.00 | $9,842.00 * | $45.50 | $12,103.00 | $52.50 | $13,965.00 | $50.50 | $13,433.00 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 938 | $36.00 | $33,768.00 * | $45.50 | $42,679.00 | $51.50 | $48,307.00 | $49.49 | $46,421.62 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 350 | $15.80 | $5,530.00 | $9.80 | $3,430.00 | $9.80 | $3,430.00 | $8.42 | $2,947.00 |
| 20 | Repair Storm Structure 20.2-138 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 21 | Repair Storm Structure 20.2-096 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 22 | Repair Storm Structure 20.2-137 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 23 | Repair Storm Structure 20.2-135 Sawgrass Lane | EA. | 1 | $1,420.00 | $1,420.00 | $1,420.00 | $1,420.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 24 | Repair Storm Structure 20.2-163 Northwest end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 25 | Repair Storm Structure 20.2-162 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 26 | Repair Storm Structure 20.2-126 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 27 | Repair Storm Structure 20.2-164 Sawgrass Lane | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 28 | Repair Storm Structure 20.2-125A Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 29 | Repair Storm Structure 20.2-125 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 30 | Repair Storm Structure 20.2-075 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |



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Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| 31 | Repair Storm Structure 20.2-074 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 32 | Repair Storm Structure 20.2-073 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 33 | Repair Storm Structure 20.2-124 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 34 | Repair Storm Structure 20.2-161 Sawgrass Lane | EA. | 1 | $1,245.00 | $1,245.00 | $1,245.00 | $1,245.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 35 | Repair Sanitary Manhole 20.2 017 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 36 | Repair Sanitary Manhole 20.2 016 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 37 | Repair Sanitary Manhole 20.2 015 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 38 | Repair Sanitary Manhole 20.2 014 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 39 | Repair Sanitary Manhole 20.2 008 Sawgrass Lane | EA. | 1 | $1,240.00 | $1,240.00 | $1,240.00 | $1,240.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 40 | Repair Sanitary Manhole 20.2 009 Sawgrass Lane | EA. | 1 | $1,770.00 | $1,770.00 | $1,770.00 | $1,770.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 41 | Repair Sanitary Manhole 20.2 012 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 42 | Repair Sanitary Manhole 20.2 013 Intersection of Cattail Court and Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 43 | Repair Sanitary Manhole 20.2 020 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 44 | Repair Sanitary Manhole 20.2 021 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 45 | Repair Sanitary Manhole 20.2 022 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 46 | Repair Sanitary Manhole 20.2 023 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 47 | Televised Sewer Pipe Cleaning and Inspection | L.F. | 3,660 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.47 | $27,340.20 |
| 48 | 12-inch Diameter CIPP lining | L.F. | 490 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $79.33 | $38,871.70 |
| 49 | 15-inch Diameter CIPP lining | L.F. | 908 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $57.69 | $52,382.52 |
| 50 | 24-inch Diameter CIPP lining | L.F. | 437 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $129.81 | $56,726.97 |
| 51 | 27-inch Diameter CIPP lining | L.F. | 212 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $169.98 | $36,035.76 |
| 52 | 24x35-inch Diameter CIPP lining | L.F. | 96 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $200.89 | $19,285.44 |
| 53 | 30-inch Diameter CIPP lining | L.F. | 686 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $200.89 | $137,810.54 |
| 54 | Remove and Replace 18-inch Storm Sewer from EOP 20.2-161 to MH 20.2-124 | L.F. | 175 | $127.00 | $22,225.00 | $127.00 | $22,225.00 | $100.00 | $17,500.00 | $95.95 | $16,791.25 |
| 55 | Remove and Replace 15-inch Storm Sewer from INL 20.1-035 to MH 20.1-036 | L.F. | 208 | $127.00 | $26,416.00 | $127.00 | $26,416.00 | $84.00 | $17,472.00 | $80.80 | $16,806.40 |
| 56 | Repair Water Valve 20.2 022 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 57 | Repair Water Valve 20.2 020 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 58 | Repair Water Valve 20.2 017 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 59 | Repair Water Valve 20.2 019 | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 60 | Repair Water Valve 20.2 019A | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |



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Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| 61 | Repair Water Valve 20.2 013 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 62 | Repair Water Valve 20.2-014 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 63 | Repair Water Valve 20.2 021 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 63)** | | | | | **$914,520.00 *** | | **$919,142.75** | | **$949,075.66** | | **$992,459.48** |
| | **Contract B- Northview Road Sidewalk** | | | | | | | | | | |
| 64 | Mobilization | L.S. | 1 | $2,350.00 | $2,350.00 | $2,250.00 | $2,250.00 | $10,000.00 | $10,000.00 | $9,500.00 | $9,500.00 |
| 65 | Traffic Control | L.S. | 1 | $2,150.00 | $2,150.00 | $1,250.00 | $1,250.00 | $3,115.06 | $3,115.06 | $8,000.00 | $8,000.00 |
| 66 | Clearing and Grubbing | L.S. | 1 | $940.00 | $940.00 | $1,000.00 | $1,000.00 | $1,000.00 | $1,000.00 | $802.95 | $802.95 |
| 67 | Tree Removal | I.D. | 15 | $40.00 | $600.00 | $40.00 | $600.00 | $78.64 | $1,179.60 | $107.06 | $1,605.90 |
| 68 | Tree Trimming | L.S. | 1 | $470.00 | $470.00 | $2,000.00 | $2,000.00 | $1,769.40 | $1,769.40 | $2,730.03 | $2,730.03 |
| 69 | Manufactured Ditch Check | EA. | 7 | $65.00 | $455.00 | $60.00 | $420.00 | $60.00 | $420.00 | $86.71 | $606.97 |
| 70 | Full Depth Saw Cut | L.F. | 260 | $2.00 | $520.00 | $2.25 | $585.00 | $4.00 | $1,040.00 | $4.04 | $1,050.40 |
| 71 | 13-inch x 17-inch CMPA in Granular Backfill | L.F. | 12 | $100.00 | $1,200.00 | $100.00 | $1,200.00 | $110.00 | $1,320.00 | $111.10 | $1,333.20 |
| 72 | 13-inch x 17-inch CMPA End Section in granular Backfill | EA. | 1 | $225.00 | $225.00 | $225.00 | $225.00 | $400.00 | $400.00 | $404.00 | $404.00 |
| 73 | 14-inch x 9-inch CMPA in Granular Backfill | L.F. | 37 | $95.00 | $3,515.00 | $95.00 | $3,515.00 | $125.00 | $4,625.00 | $126.25 | $4,671.25 |
| 74 | 14-inch x 9-inch CMPA End Section in Granular Backfill | EA. | 3 | $200.00 | $600.00 | $200.00 | $600.00 | $500.00 | $1,500.00 | $505.00 | $1,515.00 |
| 75 | 15-inch RCP CL III Storm Sewer in Granular Backfill | L.F. | 69 | $75.00 | $5,175.00 | $75.00 | $5,175.00 | $90.00 | $6,210.00 | $90.90 | $6,272.10 |
| 76 | 15-inch RCP End Section in Granular Backfill | EA. | 2 | $695.00 | $1,390.00 | $695.00 | $1,390.00 | $700.00 | $1,400.00 | $707.00 | $1,414.00 |
| 77 | 24-inch x 36-inch Field Inlet | EA. | 1 | $2,215.00 | $2,215.00 | $2,215.00 | $2,215.00 | $3,500.00 | $3,500.00 | $3,535.00 | $3,535.00 |
| 78 | Asphaltic Concrete Driveway Replacement | S.F. | 650 | $6.70 | $4,355.00 | $9.00 | $5,850.00 | $8.08 | $5,252.00 | $10.25 | $6,662.50 |
| 79 | Asphaltic Concrete Pavement | S.Y. | 60 | $76.85 | $4,611.00 | $90.00 | $5,400.00 | $78.61 | $4,716.60 | $105.00 | $6,300.00 |
| 80 | 30-inch Concrete Curb and Gutter | L.F. | 90 | $35.50 | $3,195.00 | $48.50 | $4,365.00 | $39.00 | $3,510.00 | $35.85 | $3,226.50 |
| 81 | Construct Sidewalk to Subgrade | L.S. | 1 | $19,200.00 | $19,200.00 | $6,150.00 | $6,150.00 | $11,177.06 | $11,177.06 | $9,595.00 | $9,595.00 |
| 82 | Excavation Below Subgrade | C.Y. | 30 | $38.60 | $1,158.00 | $25.00 | $750.00 | $45.00 | $1,350.00 | $45.45 | $1,363.50 |
| 83 | Excavation Below Subgrade Backfill | TON | 60 | $33.30 | $1,998.00 | $25.00 | $1,500.00 | $25.00 | $1,500.00 | $25.25 | $1,515.00 |
| 84 | Geogrid Subgrade Stabilization Material | S.Y. | 90 | $7.00 | $630.00 | $5.00 | $450.00 | $5.00 | $450.00 | $5.05 | $454.50 |
| 85 | 3/4-inch Crushed Aggregate Base Course | TON | 200 | $32.75 | $6,550.00 | $20.00 | $4,000.00 | $15.00 | $3,000.00 | $15.15 | $3,030.00 |
| 86 | 6-inch HES Concrete Sidewalk at Driveways | S.F. | 220 | $8.00 | $1,760.00 | $6.00 | $1,320.00 | $8.00 | $1,760.00 | $8.08 | $1,777.60 |
| 87 | Crushed Aggregate Shoulder | L.F. | 150 | $3.20 | $480.00 | $3.00 | $450.00 | $3.00 | $450.00 | $3.03 | $454.50 |
| 88 | Small Rip-Rap | C.Y. | 7 | $150.00 | $1,050.00 | $80.00 | $560.00 | $150.00 | $1,050.00 | $91.81 | $642.67 |
| 89 | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4,840 | $5.75 | $27,830.00 | $5.35 | $25,894.00 | $5.75 | $27,830.00 | $5.81 | $28,120.40 |



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Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| 90 | Detectable Warning Fields | S.F. | 30 | $35.00 | $1,050.00 | $70.00 | $2,100.00 | $35.00 | $1,050.00 | $35.35 | $1,060.50 |
| 91 | 4-inch White Epoxy Pavement Material | L.F. | 90 | $15.00 | $1,350.00 | $20.00 | $1,800.00 | $5.50 | $495.00 | $40.35 | $3,631.50 |
| 92 | Ditching | L.F. | 900 | $6.45 | $5,805.00 | $11.00 | $9,900.00 | $8.00 | $7,200.00 | $95.50 | $85,950.00 |
| 93 | Topsoil, Seed, Fertilizer, Mulch and Erosion Mat | S.Y. | 950 | $6.80 | $6,460.00 | $7.80 | $7,410.00 | $7.80 | $7,410.00 | $8.96 | $8,512.00 |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 64 - 93)** | | | | | **$109,287.00** | | **$100,324.00** | | **$115,679.72** | | **$205,736.97** |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 93)** | | | | | **$1,023,807.00** | | **$1,019,466.75** | | **$1,064,755.38** | | **$1,198,196.45** |
| **Contract A-Meadowbrook Farms Phase 2-Mandatory Alternate Bid** | | | | | | | | | | | |
| MA-1A | Small Rip-Rap | C.Y. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-2A | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-3A | Detectable Warning Fields | S.F. | 4 | $850.00 | $3,400.00 | $850.00 | $3,400.00 | $700.00 | $2,800.00 | $707.00 | $2,828.00 |
| MA-4A | 4-inch White Epoxy Pavement Material | L.F. | 24 | $165.00 | $3,960.00 | $165.00 | $3,960.00 | $800.00 | $19,200.00 | $808.00 | $19,392.00 |
| MA-A5 | Ditching | L.F. | 4 | $1,145.00 | $4,580.00 | $1,145.00 | $4,580.00 | $925.00 | $3,700.00 | $934.25 | $3,737.00 |
| **TOTAL OF ALL MANDATORY ALTERNATE ESTIMATED PRICES** | | | | | **$15,700.00** | | **$15,700.00** | | **$28,500.00** | | **$28,785.00** |
| **TOTAL OF ALL ESTIMATED PRICES** | | | | | **$1,055,207.00** | | **$1,050,866.75** | | **$1,121,755.38** | | **$1,255,766.45** |

$1,039,507.00 $1,035,166.75 $1,093,255.38 $1,226,981.45

Always Contractors
Bid Item 12: Should be $146,250.00, not $146,120.00
Bid Item 17: Should be $9,842.00, not $1,862.00
Bid Item 18: Should be $33,768.00, not $33,696.00
New Total: $914,520.00, not $906,338.00
New Grand Total: $1,023,807, not $1,015,625.00



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February 22, 2022

Ms. Magdelene J. Wagner, P.E
Director of Public Works
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Meadowbrook Farms Phase 2 (RD-22-57554)
and Northview Road Sidewalk (HB-22-58230)

Dear Ms. Wagner:

Bids for the above project were opened on February 17, 2022 at 1000 a.m. at the City Hall and were as follows:

| | BIDDER | Contract A | Contract B | MA-Items | TOTAL |
|---|---|---|---|---|---|
| 1. | Wolf Paving Co., Inc. | $919,142.75 | $100,324.00 | $15,700.00 | $1,035,166.75 |
| 2. | All-Ways Contractors, Inc. | $914,520.00 | $109,287.00 | $15,700.00 | $1,039,507.00 |
| 3. | Payne & Dolan, Inc. | $949,075.66 | $115,679.72 | $28,500.00 | $1,093,255.38 |
| 4. | Stark Pavement Corporation | $992,459.48 | $205,736.97 | $28,785.00 | $1,226,981.45 |

We reviewed the documentation submitted by the apparent low bidder and found that:

1. The Bid Form has been appropriately completed.

2. We have no objections to the low bidder, nor to the proposed major subcontractors and suppliers.

3. Low bidder has successfully completed similar projects over the last several years.

On these bases, we recommend that Wolf Paving Co., Inc. be awarded the Meadowbrook Farms Phase 2 (RD-22-57554) and Northview Road Sidewalk (HB-22-58230) contract, in the amount of $1,035,166.75. This amount is based on the bid unit prices and estimated quantities. Actual quantities, and therefore the final contract price, may vary. On all construction projects unpredictable factors may increase the final contract amount. For this reason, we recommend that the City include a 10 percent contingency when preparing the financial plan for this work.

Our review did not include an evaluation of bidder's current financial condition nor of their permanent safety program.

Should you decide to accept our recommendation, we have prepared the enclosed Notice of Award for your use. After City approval has been received, please have the appropriate official sign where indicated and forward a signed copy of the Notice of Award to our office. We will then fill in the date at the top of page one and forward it, with contracts for execution, to the Contractor. One fully completed Notice of Award will be returned to you for your records.

Bids remain subject to acceptance until April 18, 2022, unless Bidder agrees to an extension. Please advise us of your award decision, or call if there are any questions.

Respectfully,

RUEKERT & MIELKE, INC.

Kenneth R. Ward, P.E. (WI)
Vice President/Office Manager
kward@ruekert-mielke.com

KRW:sjs
Encl: Notice of Award
Bid Tabulation

cc: Michaelis Gabby, City of Pewaukee
Greg R. Calhoun, P.E., Ruekert & Mielke, Inc.
DeLeah M. Willman, E.I.T., Ruekert & Mielke, Inc.

## NOTICE OF AWARD

Date of Issuance: _____

| | | | |
|---|---|---|---|
| | | Owner: | City of Pewaukee |
| Contract: | Meadowbrook Farms Phase 2 and Northview Road Sidewalk | Owner's Contract No.: | RD-22-57554<br>HB-22-58230 |
| Bidder: | Wolf Paving Co., Inc. | Engineer: | Ruekert & Mielke, Inc. |
| Address: | 612 N. Sawyer Road<br>Oconomowoc, WI 53066 | Engineer's Project No.: | 26-10145.200 |

TO BIDDER:

You are notified that your Bid dated February 17, 2022 for the above Contract has been accepted by Owner and you are the Successful Bidder and are awarded a Contract for:

Meadowbrook Farms Phase 2 and Northview Road Sidewalk
Contract A, Contract B and Mandatory Alternate Items.

The Contract Price of your Contract is: $ 1,035,166.75

Two (2) copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award or have been transmitted or made available to Bidder electronically.

Two (2) sets of the Drawings will be delivered separately, or otherwise made available to Bidder electronically.

Bidder must comply with the following conditions precedent within 15 days of the date of issuance of this Notice of Award:

1. Deliver to Engineer two (2) fully executed counterparts of the Contract Documents.
2. Deliver with the executed Agreement the Performance Bond, Payment Bond as specified in the Instructions to Bidders (Article 21), General Conditions (Paragraph 6.01).
3. Deliver with the executed Agreement certificates and other evidence of insurance as specified in the General Conditions (Article 6) and the Supplementary Conditions modifying Article 6 of the General Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Engineer will return to you one fully executed counterpart of the Agreement.

Owner**:** City of Pewaukee

Signature: _____
Authorized Signature

Title: _____

Date: _____

Copy: Engineer

Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

# COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| | **Contract A-Meadowbrook Farms Phase 2** | | | | | | | | | | |
| 1 | Mobilization | L.S. | 1 | $27,000.00 | $27,000.00 | $15,660.00 | $15,660.00 | $30,000.00 | $30,000.00 | $13,500.00 | $13,500.00 |
| 2 | Traffic control | L.S. | 1 | $4,400.00 | $4,400.00 | $1,250.00 | $1,250.00 | $5,191.75 | $5,191.75 | $8,900.00 | $8,900.00 |
| 3 | Inlet sediment guards type "C" | EA. | 35 | $58.00 | $2,030.00 | $60.00 | $2,100.00 | $60.00 | $2,100.00 | $56.11 | $1,963.85 |
| 4 | Dust control using water (Ordered by Engineer) | 1000 GAL | 5 | $100.00 | $500.00 | $100.00 | $500.00 | $26.06 | $130.30 | $100.00 | $500.00 |
| 5 | Full depth saw cut pavement | L.F. | 75 | $4.00 | $300.00 | $2.25 | $168.75 | $0.50 | $37.50 | $5.00 | $375.00 |
| 6 | Full depth pavement milling | S.Y. | 12,760 | $3.65 | $46,574.00 | $2.60 | $33,176.00 | $4.00 | $51,040.00 | $2.95 | $37,642.00 |
| 7 | 1 1/4-inch crushed limestone T.B. base aggregate | TON | 319 | $21.00 | $6,699.00 | $21.00 | $6,699.00 | $24.74 | $7,892.06 | $26.00 | $8,294.00 |
| 8 | 3/4-inch crushed limestone T.B. base aggregate | TON | 91 | $30.00 | $2,730.00 | $30.00 | $2,730.00 | $24.76 | $2,253.16 | $26.00 | $2,366.00 |
| 9 | Excavation below subgrade | C.Y. | 1,105 | $17.80 | $19,669.00 | $17.80 | $19,669.00 | $29.31 | $32,387.55 | $43.75 | $48,343.75 |
| 10 | Excavation below subgrade backfill | TON | 2,210 | $18.90 | $41,769.00 | $18.90 | $41,769.00 | $24.77 | $54,741.70 | $26.85 | $59,338.50 |
| 11 | Geo-grid subgrade stabilization material. | S.Y. | 553 | $6.00 | $3,318.00 | $6.00 | $3,318.00 | $2.48 | $1,371.44 | $9.00 | $4,977.00 |
| 12 | 3 1/4-inch asphaltic concrete binder course | TON | 2,600 | $56.25 | $146,250.00 * | $64.20 | $166,920.00 | $53.50 | $139,100.00 | $65.15 | $169,390.00 |
| 13 | Tack coat | GAL | 900 | $2.70 | $2,430.00 | $3.00 | $2,700.00 | $2.00 | $1,800.00 | $3.00 | $2,700.00 |
| 14 | 1 3/4-inch asphaltic concrete surface course | TON | 1,400 | $69.00 | $96,600.00 | $68.80 | $96,320.00 | $65.00 | $91,000.00 | $70.85 | $99,190.00 |
| 15 | Asphaltic concrete driveway replacement | S.F. | 160 | $10.00 | $1,600.00 | $13.50 | $2,160.00 | $9.77 | $1,563.20 | $16.00 | $2,560.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 240 | $36.00 | $8,640.00 | $45.50 | $10,920.00 | $51.50 | $12,360.00 | $49.49 | $11,877.60 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 266 | $37.00 | $9,842.00 * | $45.50 | $12,103.00 | $52.50 | $13,965.00 | $50.50 | $13,433.00 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 938 | $36.00 | $33,768.00 * | $45.50 | $42,679.00 | $51.50 | $48,307.00 | $49.49 | $46,421.62 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 350 | $15.80 | $5,530.00 | $9.80 | $3,430.00 | $9.80 | $3,430.00 | $8.42 | $2,947.00 |
| 20 | Repair Storm Structure 20.2-138 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 21 | Repair Storm Structure 20.2-096 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 22 | Repair Storm Structure 20.2-137 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 23 | Repair Storm Structure 20.2-135 Sawgrass Lane | EA. | 1 | $1,420.00 | $1,420.00 | $1,420.00 | $1,420.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 24 | Repair Storm Structure 20.2-163 Northwest end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 25 | Repair Storm Structure 20.2-162 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 26 | Repair Storm Structure 20.2-126 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 27 | Repair Storm Structure 20.2-164 Sawgrass Lane | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 28 | Repair Storm Structure 20.2-125A Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 29 | Repair Storm Structure 20.2-125 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 30 | Repair Storm Structure 20.2-075 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 31 | Repair Storm Structure 20.2-074 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |



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Cost Comparison of Bidders~2 (COMPARISON OF BIDDERS)

Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| 32 | Repair Storm Structure 20.2-073 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 33 | Repair Storm Structure 20.2-124 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 34 | Repair Storm Structure 20.2-161 Sawgrass Lane | EA. | 1 | $1,245.00 | $1,245.00 | $1,245.00 | $1,245.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 35 | Repair Sanitary Manhole 20.2 017 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 36 | Repair Sanitary Manhole 20.2 016 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 37 | Repair Sanitary Manhole 20.2 015 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 38 | Repair Sanitary Manhole 20.2 014 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 39 | Repair Sanitary Manhole 20.2 008 Sawgrass Lane | EA. | 1 | $1,240.00 | $1,240.00 | $1,240.00 | $1,240.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 40 | Repair Sanitary Manhole 20.2 009 Sawgrass Lane | EA. | 1 | $1,770.00 | $1,770.00 | $1,770.00 | $1,770.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 41 | Repair Sanitary Manhole 20.2 012 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 42 | Repair Sanitary Manhole 20.2 013 Intersection of Cattail Court and Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 43 | Repair Sanitary Manhole 20.2 020 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 44 | Repair Sanitary Manhole 20.2 021 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 45 | Repair Sanitary Manhole 20.2 022 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 46 | Repair Sanitary Manhole 20.2 023 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 47 | Televised Sewer Pipe Cleaning and Inspection | L.F. | 3,660 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.47 | $27,340.20 |
| 48 | 12-inch Diameter CIPP lining | L.F. | 490 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $79.33 | $38,871.70 |
| 49 | 15-inch Diameter CIPP lining | L.F. | 908 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $57.69 | $52,382.52 |
| 50 | 24-inch Diameter CIPP lining | L.F. | 437 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $129.81 | $56,726.97 |
| 51 | 27-inch Diameter CIPP lining | L.F. | 212 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $169.98 | $36,035.76 |
| 52 | 24x35-inch Diameter CIPP lining | L.F. | 96 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $200.89 | $19,285.44 |
| 53 | 30-inch Diameter CIPP lining | L.F. | 686 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $200.89 | $137,810.54 |
| 54 | Remove and Replace 18-inch Storm Sewer from EOP 20.2-161 to MH 20.2-124 | L.F. | 175 | $127.00 | $22,225.00 | $127.00 | $22,225.00 | $100.00 | $17,500.00 | $95.95 | $16,791.25 |
| 55 | Remove and Replace 15-inch Storm Sewer from INL 20.1-035 to MH 20.1-036 | L.F. | 208 | $127.00 | $26,416.00 | $127.00 | $26,416.00 | $84.00 | $17,472.00 | $80.80 | $16,806.40 |
| 56 | Repair Water Valve 20.2 022 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 57 | Repair Water Valve 20.2 020 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 58 | Repair Water Valve 20.2 017 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 59 | Repair Water Valve 20.2 019 | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 60 | Repair Water Valve 20.2 019A | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 61 | Repair Water Valve 20.2 013 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 62 | Repair Water Valve 20.2-014 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 63 | Repair Water Valve 20.2 021 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |


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Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 63)** | | | | | **$914,520.00 *** | | **$919,142.75** | | **$949,075.66** | | **$992,459.48** |
| | **Contract B- Northview Road Sidewalk** | | | | | | | | | | |
| 64 | Mobilization | L.S. | 1 | $2,350.00 | $2,350.00 | $2,250.00 | $2,250.00 | $10,000.00 | $10,000.00 | $9,500.00 | $9,500.00 |
| 65 | Traffic Control | L.S. | 1 | $2,150.00 | $2,150.00 | $1,250.00 | $1,250.00 | $3,115.06 | $3,115.06 | $8,000.00 | $8,000.00 |
| 66 | Clearing and Grubbing | L.S. | 1 | $940.00 | $940.00 | $1,000.00 | $1,000.00 | $1,000.00 | $1,000.00 | $802.95 | $802.95 |
| 67 | Tree Removal | I.D. | 15 | $40.00 | $600.00 | $40.00 | $600.00 | $78.64 | $1,179.60 | $107.06 | $1,605.90 |
| 68 | Tree Trimming | L.S. | 1 | $470.00 | $470.00 | $2,000.00 | $2,000.00 | $1,769.40 | $1,769.40 | $2,730.03 | $2,730.03 |
| 69 | Manufactured Ditch Check | EA. | 7 | $65.00 | $455.00 | $60.00 | $420.00 | $60.00 | $420.00 | $86.71 | $606.97 |
| 70 | Full Depth Saw Cut | L.F. | 260 | $2.00 | $520.00 | $2.25 | $585.00 | $4.00 | $1,040.00 | $4.04 | $1,050.40 |
| 71 | 13-inch x 17-inch CMPA in Granular Backfill | L.F. | 12 | $100.00 | $1,200.00 | $100.00 | $1,200.00 | $110.00 | $1,320.00 | $111.10 | $1,333.20 |
| 72 | 13-inch x 17-inch CMPA End Section in granular Backfill | EA. | 1 | $225.00 | $225.00 | $225.00 | $225.00 | $400.00 | $400.00 | $404.00 | $404.00 |
| 73 | 14-inch x 9-inch CMPA in Granular Backfill | L.F. | 37 | $95.00 | $3,515.00 | $95.00 | $3,515.00 | $125.00 | $4,625.00 | $126.25 | $4,671.25 |
| 74 | 14-inch x 9-inch CMPA End Section in Granular Backfill | EA. | 3 | $200.00 | $600.00 | $200.00 | $600.00 | $500.00 | $1,500.00 | $505.00 | $1,515.00 |
| 75 | 15-inch RCP CL III Storm Sewer in Granular Backfill | L.F. | 69 | $75.00 | $5,175.00 | $75.00 | $5,175.00 | $90.00 | $6,210.00 | $90.90 | $6,272.10 |
| 76 | 15-inch RCP End Section in Granular Backfill | EA. | 2 | $695.00 | $1,390.00 | $695.00 | $1,390.00 | $700.00 | $1,400.00 | $707.00 | $1,414.00 |
| 77 | 24-inch x 36-inch Field Inlet | EA. | 1 | $2,215.00 | $2,215.00 | $2,215.00 | $2,215.00 | $3,500.00 | $3,500.00 | $3,535.00 | $3,535.00 |
| 78 | Asphaltic Concrete Driveway Replacement | S.F. | 650 | $6.70 | $4,355.00 | $9.00 | $5,850.00 | $8.08 | $5,252.00 | $10.25 | $6,662.50 |
| 79 | Asphaltic Concrete Pavement | S.Y. | 60 | $76.85 | $4,611.00 | $90.00 | $5,400.00 | $78.61 | $4,716.60 | $105.00 | $6,300.00 |
| 80 | 30-inch Concrete Curb and Gutter | L.F. | 90 | $35.50 | $3,195.00 | $48.50 | $4,365.00 | $39.00 | $3,510.00 | $35.85 | $3,226.50 |
| 81 | Construct Sidewalk to Subgrade | L.S. | 1 | $19,200.00 | $19,200.00 | $6,150.00 | $6,150.00 | $11,177.06 | $11,177.06 | $9,595.00 | $9,595.00 |
| 82 | Excavation Below Subgrade | C.Y. | 30 | $38.60 | $1,158.00 | $25.00 | $750.00 | $45.00 | $1,350.00 | $45.45 | $1,363.50 |
| 83 | Excavation Below Subgrade Backfill | TON | 60 | $33.30 | $1,998.00 | $25.00 | $1,500.00 | $25.00 | $1,500.00 | $25.25 | $1,515.00 |
| 84 | Geogrid Subgrade Stabilization Material | S.Y. | 90 | $7.00 | $630.00 | $5.00 | $450.00 | $5.00 | $450.00 | $5.05 | $454.50 |
| 85 | 3/4-inch Crushed Aggregate Base Course | TON | 200 | $32.75 | $6,550.00 | $20.00 | $4,000.00 | $15.00 | $3,000.00 | $15.15 | $3,030.00 |
| 86 | 6-inch HES Concrete Sidewalk at Driveways | S.F. | 220 | $8.00 | $1,760.00 | $6.00 | $1,320.00 | $8.00 | $1,760.00 | $8.08 | $1,777.60 |
| 87 | Crushed Aggregate Shoulder | L.F. | 150 | $3.20 | $480.00 | $3.00 | $450.00 | $3.00 | $450.00 | $3.03 | $454.50 |
| 88 | Small Rip-Rap | C.Y. | 7 | $150.00 | $1,050.00 | $80.00 | $560.00 | $150.00 | $1,050.00 | $91.81 | $642.67 |
| 89 | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4,840 | $5.75 | $27,830.00 | $5.35 | $25,894.00 | $5.75 | $27,830.00 | $5.81 | $28,120.40 |
| 90 | Detectable Warning Fields | S.F. | 30 | $35.00 | $1,050.00 | $70.00 | $2,100.00 | $35.00 | $1,050.00 | $35.35 | $1,060.50 |
| 91 | 4-inch White Epoxy Pavement Material | L.F. | 90 | $15.00 | $1,350.00 | $20.00 | $1,800.00 | $5.50 | $495.00 | $40.35 | $3,631.50 |
| 92 | Ditching | L.F. | 900 | $6.45 | $5,805.00 | $11.00 | $9,900.00 | $8.00 | $7,200.00 | $95.50 | $85,950.00 |
| 93 | Topsoil, Seed, Fertilizer, Mulch and Erosion Mat | S.Y. | 950 | $6.80 | $6,460.00 | $7.80 | $7,410.00 | $7.80 | $7,410.00 | $8.96 | $8,512.00 |



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Ruekert · Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 64 - 93)** | | | | | **$109,287.00** | | **$100,324.00** | | **$115,679.72** | | **$205,736.97** |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 93)** | | | | | **$1,023,807.00** | | **$1,019,466.75** | | **$1,064,755.38** | | **$1,198,196.45** |
| **Contract A-Meadowbrook Farms Phase 2-Mandatory Alternate Bid** | | | | | | | | | | | |
| MA-1A | Small Rip-Rap | C.Y. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-2A | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-3A | Detectable Warning Fields | S.F. | 4 | $850.00 | $3,400.00 | $850.00 | $3,400.00 | $700.00 | $2,800.00 | $707.00 | $2,828.00 |
| MA-4A | 4-inch White Epoxy Pavement Material | L.F. | 24 | $165.00 | $3,960.00 | $165.00 | $3,960.00 | $800.00 | $19,200.00 | $808.00 | $19,392.00 |
| MA-A5 | Ditching | L.F. | 4 | $1,145.00 | $4,580.00 | $1,145.00 | $4,580.00 | $925.00 | $3,700.00 | $934.25 | $3,737.00 |
| **TOTAL OF ALL MANDATORY ALTERNATE ESTIMATED PRICES** | | | | | **$15,700.00** | | **$15,700.00** | | **$28,500.00** | | **$28,785.00** |
| **TOTAL OF ALL ESTIMATED PRICES** | | | | | **$1,039,507.00** | | **$1,035,166.75** | | **$1,093,255.38** | | **$1,226,981.45** |

Always Contractors
Bid Item 12: Should be $146,250.00, not $146,120.00
Bid Item 17: Should be $9,842.00, not $1,862.00
Bid Item 18: Should be $33,768.00, not $33,696.00
New Total: $914,520.00, not $906,338.00
New Grand Total: $1,023,807, not $1,015,625.00


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# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 5.

**DATE:** March 7, 2022

**DEPARTMENT:** PW - Engineering

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action Regarding Duplainville Road Acquisition [Wagner]

***BACKGROUND:***

Single Source, Inc. was contracted to complete the appraisals and assist with the acquisition of the easements for the Duplainville Road Reconstruction project. Single Source has completed the appraisals for the eight (8) properties where easements were needed to construct for storm sewer end sections and trail construction. The attached is a list of the properties and the appraisal value.

We are requesting approval for the offer amounts with a "buffer" of approximately $5,000.00 for each property for some negotiation at the time of offer presentation. The additional $5,000.00 is a result of the following reasoning. Each parcel qualifies for a second appraisal of their property at our expense. We anticipate this to cost approximately $2,000.00 for each parcel who opts to complete this. The property owner has 60 days to present this second appraisal to the City. We would like to acquire the easements as soon as possible so the additional $3,000.00 is an incentive to accept the current appraisal.

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

Common Council accept the appraisal amounts totaling $8,300 with a buffer totaling $40,000 for a total of $48,300 authorized expenditure for the land acquisitions.

**ATTACHMENTS:**

Description

Acquisition Fee Summary
PWC0868995 Road Appraisal
PWC0868995 Bridge Appraisal
PWC0919999001 Road Appraisal

PWC0919999001 Bridge Appraisal
PWC0912980 Road Appraisal
PWC0909999002 Road Appraisal
PWC0867998001 Road Appraisal
PWC0867998 Road Appraisal
Resolution 22.03.09 Relocation

| Tax Key | Name | Address | Easement Type | Appraisal Amount | Authorized Buffer | |
|---|---|---|---|---|---|---|
| PWC0868995 | Deborah Dollak | W225N4014 Duplainville Road | Easement | $2,500.00 | $5,000.00 | |
| PWC0868995 | Deborah Dollak | W225N4014 Duplainville Road | Bridge Easement | $200.00 | $5,000.00 | |
| PWC0919999001 | Katie & Kurt Nettesheim | W224N3884 Duplainville Road | Easement | $700.00 | $5,000.00 | |
| PWC0919999001 | Katie & Kurt Nettesheim | W224N3884 Duplainville Road | Bridge Easement | $100.00 | $5,000.00 | |
| PWC0912980 | Dean Katz | W225N3484 Duplainville Road | Right of Way | $800.00 | $5,000.00 | |
| PWC0909999002 | All One Storage, LLC | W223N2554 Duplainville Road | Easement | $1,300.00 | $5,000.00 | |
| PWC0867998001 | Edward & Penny Wistl | W225N4140 Duplainville Road | Easement | $1,900.00 | $5,000.00 | |
| PWC0867998 | Thomas & Marcia Mueller | W225N4226 Duplainville Road | Easement | $800.00 | $5,000.00 | |
| | | | | $8,300.00 | $40,000.00 | $48,300.00 |

**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W225N4014 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 4

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

March 2, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 4

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road. According Public Records, the site contains approximately 3.1095-acres or 135,450-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W225N4014 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**TWO THOUSAND FIVE HUNDRED DOLLARS**

**($2,500)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $399,800 |
| Loss in Market Value: | $2,100 |
| Permanent Limited Easement: | $400 |
| **Total Damages (Rounded):** | $2,500 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$2,100** |
| **Permanent Limited Easement:** | **$400** |
| **Total:** | **$2,500** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

We certify that, to the best of our knowledge and belief:

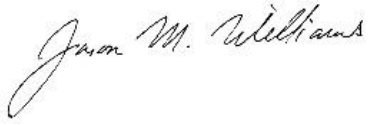
1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. On Wednesday, January 26, 2022 Jason Williams of Single Source, Inc. called the owner to schedule an inspection of the subject property. The telephone call was not answered and a voicemail was left inviting the owner to accompany the appraisers on the inspection. Mr. Williams did not receive a return call. Mr. Williams sent a letter dated January 26, 2022 inviting the owner to contact him about accompanying someone from Single Source, Inc. on an appraisal inspection. Mr. Williams did not hear back. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $2,500.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Deborah J. Dollak |
| Property Address: | W225N4014 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin 53072 |
| Owner Address: | W225N4014 Duplainville Rd., City of Pewaukee, Waukesha, Wisconsin 53072 |
| Phone: | 262-695-1304 |
| Total Land Area: | 3.1095-acres or 135,450-square feet |
| Building Improvements: | The subject is improved with a single-family residence |
| Assessor's Parcel Number: | PWC 0868995 |
| Current Zoning: | Rs-2, Single-Family Residential District and F-1, Floodplain Districts |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Residential Development |
| As Improved: | Single-Family Residence |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Permanent Limited Easement: | 437 square feet or 0.01003 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $399,800 |
| Loss in Market Value: | $2,100 |
| Permanent Limited Easement: | $400 |
| **Total Damages (Rounded):** | $2,500 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$2,100** |
| **Permanent Limited Easement:** | **$400** |
| **Total:** | **$2,500** |


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ADDENDA
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C Comparable Land Sales
D Zoning Map & Code
E Legal Descriptions
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G Flood Plain Map
H Appraiser Qualifications


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road. According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owner of the subject property is Deborah J. Dollak. According to public records the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | March 2, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Permanent Limited Easement totaling 437-square feet or 0.01003-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

None noted.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 30 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a residential use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

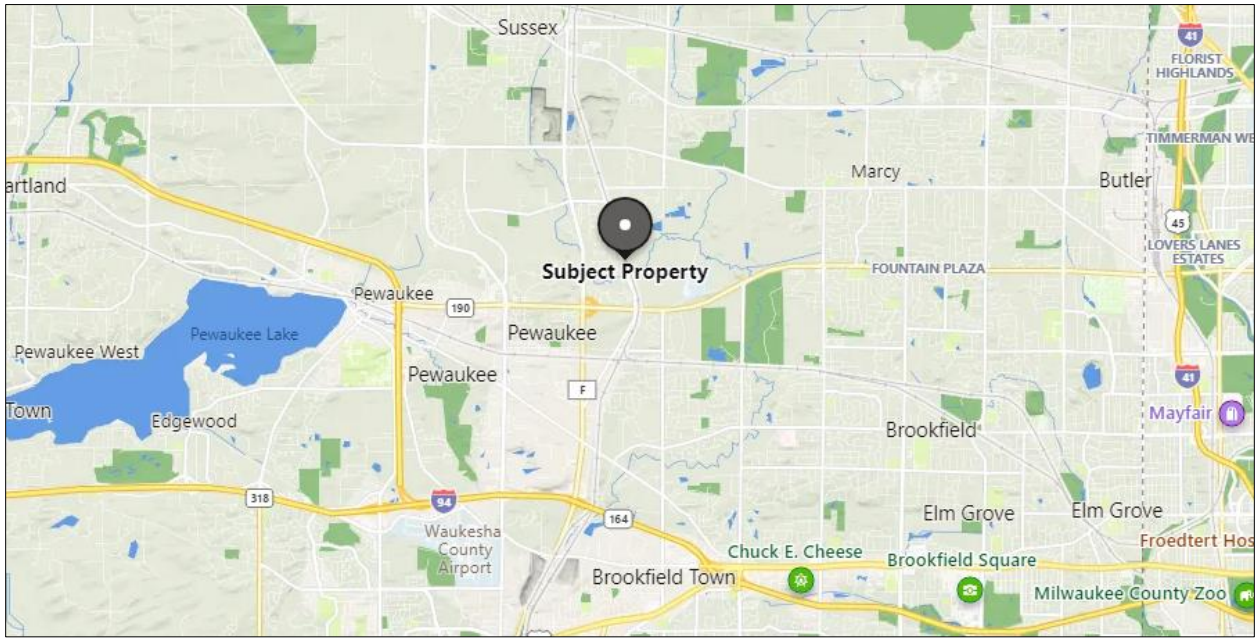

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.

Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area


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of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet.

### Shape and Frontage

The subject is rectangular in shape with approximately 546 linear feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has a rectangular shape and is generally level and at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available and connected to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

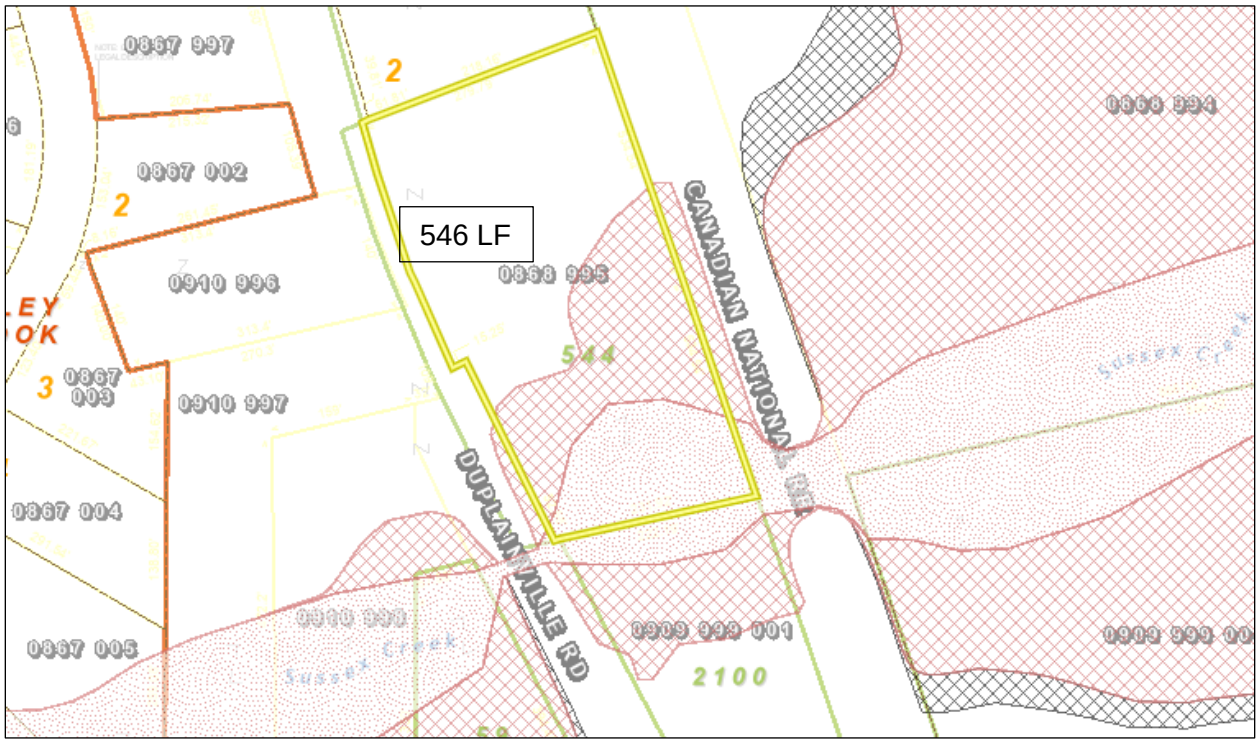
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within Zone X and Zone AE as indicated on FEMA Community Map Panel 55133CO202G dated November 5, 2014. According to the maps the single-family residence is located in Zone X while the project area is located in Zone AE.

FEMA Zone X: Areas determined to be outside the 500 year flood plain.

FEMA Zone AE: Areas subject to inundation by the 1-percent-annual-chance flood event.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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### Site Improvements

The site is improved with a single-family residence. The improvements will not be impacted by the road project.

**Aerial Map**




### Larger Parcel

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

### Conclusion

The property is comprised of a single larger parcel containing 3.1095-acres or 135,450-square feet. The site topography is generally level and at road grade. The subject is rectangular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available and connected to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | Rs-2, Single-Family Residential District |
| Permitted Uses: | One single-family residence, foster homes, CBRFs, family day care, professional home office, hobby kennels |
| **Category** | **Zoning Requirement** |
| Front Setback: | 45-feet from right-of-way |
| Rear Setback: | 35-feet |
| Side Setback: | 25-feet |
| Floodplain Setback: | 75-feet |
| Wetland Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 220' at building |
| Driveway Limit: | 24-feet at right-of-way line and 28-feet at the roadway |
| Source: City of Pewaukee Zoning Code<br>Compiled By: Single Source, Inc. | |

In addition to the Rs-2 Single-Family Residential District, the subject property is zoned F-1, Flood Plain District. According to the City of Pewaukee Municipal Code Chapter 17, The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas.

Permitted uses in the F-1, Floodplain District include functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes and public utilities, streets/highways and bridges that comply with various subsections of the F-1 zoning classification.

The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a base flood floodplain

The property is considered to be a legal and conforming use in the "before" and "after" condition. The subject property consists of 3.1095 acres "before" and will contain 3.1095 acres in the "after" condition. The minimum lot size per the Rs-2 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0868995 | $147,500 | $168,300 | $315,800 | $3,631.95 |
| Equalized Market Value @ 100% | $150,400 | $171,600 | $322,000 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $3,631.95 includes a First Dollar Credit of $66.80, Lottery Credit of $236.91. Review of public records indicate no special assessment for the subject property.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned Rs-2 Single-Family Residential District and F-1, Floodplain District. The Rs-2 Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre. The subject property appears to comply with the current Rs-2 zoning standards.

The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. The subject property appears to comply with the current F-1 zoning standards.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally rectangular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. Based on the subject's specific location and physical characteristics, it is our opinion that a residential use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics,


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it is our opinion that development of the site with a residential use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

**Conclusion: Highest and Best Use As Though Vacant**

The concluded highest and best use of the subject as though vacant is residential development.

## HIGHEST AND BEST USE AS IMPROVED

**Legal Permissibility**

The subject is a legal and conforming use as improved per the Rs-2 Single-Family Residential District and F-1, Floodplain District zoning code.

**Physical Possibility**

The layout and positioning of the improvements are functional for a single-family residence, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current single-family residence.

**Financial Feasibility**

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active residential market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

**Maximum Profitability**

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

**Conclusion: Highest and Best Use as Improved**

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as a single-family residence. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

**Conclusion: Highest and Best Use – Before Acquisition**

The concluded highest and best use of the subject before the acquisition is continued use as a single-family residence.


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**Conclusion: Highest and Best Use – After Acquisition**

The concluded highest and best use of the subject after the acquisition is continued use as a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 135,450-square feet or 3.1095-acres in the "before" condition. The subject is improved with a single-family residence, in the "before" and "after" condition. Following the acquisition the subject site will remain at 135,450-square feet or 3.1095-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat 21-01-4.02 recorded as Document No. 4651917 on February 15, 2022 are as shown below:

| | | |
|---|---|---|
| Subject Before Acquisition: | 135,450 SF | 3.1095-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Permanent Limited Easement: | 437 | 0.01003-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 135,450 SF | 3.1095-acres |

**Acquired Parcel**

None.

**Permanent Limited Easement**

One Permanent Limited Easement of 0.01003-acres or approximately 437-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.02 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

**Site Improvements**

The lawn within the Permanent Limited Easement area will be replaced in like kind as part of the construction project. According to the Project Engineer, Ashley Pridemore, there are two large and three small evergreen trees within the acquisition area that will be acquired by the project and three small evergreen trees located in the existing right-of-way and are non-compensable.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

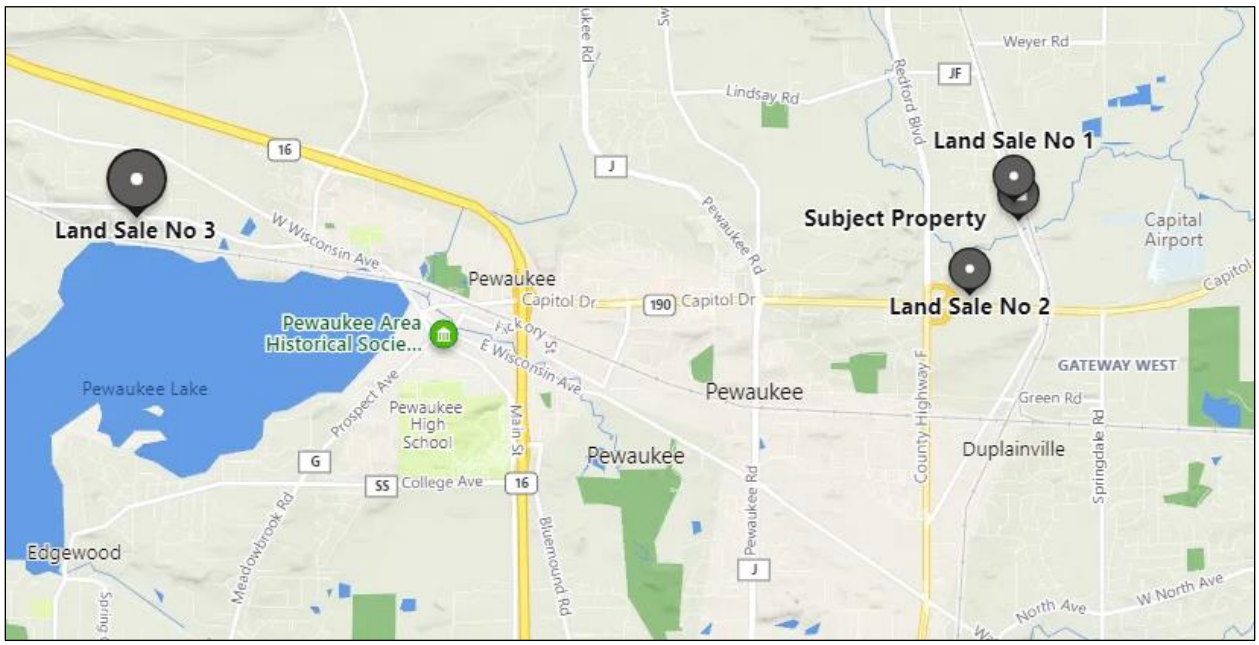
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




## ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $1.46 to $5.44 per square foot of land area. The primary differences between the comparable sales and the subject include utilities, physical characteristics and size of the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash


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equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.

**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4014 Duplainville Rd. Pewaukee, WI | -- | 135,450 | 3.1095 | Rs-2, F-1 | -- | -- | |
| 1 | Lot 1 Duplainville Road Pewaukee, WI | Feb-22 | 35,954 | 0.8254 | Rs-3 | $52,500 | $1.46 | $63,606 |
| 2 | Lot 14 Wyndemere Court Pewaukee, WI | Oct-21 | 23,893 | 0.5485 | Rs-5 | $130,000 | $5.44 | $237,010 |
| 3 | Lot 2 Glacier Road Pewaukee, WI | Sep-21 | 91,929 | 2.1104 | Rs-3, UC | $300,000 | $3.26 | $142,153 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation. All sales are less than one year from the date of value and do not require adjustment.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available. Sale Nos. 1 and 3 have sewer service available but not water and require an upward adjustment. Sale No. 2 has both sewer and water available therefore no adjustment is required.

**Size**

The subject site has a size of approximately 3.1095-acres or 135,450-square feet of land area. The comparable sales range from 23,893-square feet to 91,929-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale Nos. 1, 2, and 3 are deemed smaller in size compared to the subject site and require varying degrees of downward adjustment.

**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of


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W225N4014 Duplainville Road. Sale Nos. 1 and 3 are deemed similar in location to the subject site and require no adjustment. Sale No. 2 is located in a pre-planned subdivision and is deemed to have superior location compared to the subject site and requires a downward adjustment.

**Access/Visibility**

The subject property has average access from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale Nos. 1 and 2 are deemed similar in access to the subject site and require no adjustment. Sale No. 3 has below average access because of narrow road width, minimal roadway shoulder and the access point to the site is located at the apex of a curve in the roadway. Therefore, in our opinion an upward adjustment is required.

**Physical Features**

The subject is rectangular in shape with generally level topography and at road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system. The southern portion of the subject site is located in a floodplain.

Sale No. 1 abuts the Canadian Pacific rail system and has similar physical features to the subject site, but is not located in a floodplain which is considered a superior feature and requires a downward adjustment. Sale No. 2 does not abut a rail system and is not located in a floodplain which are considered superior features and requires a downward adjustment. Sale No. 3 does not abut a rail system, but has a view of Pewaukee Lake, therefore in our opinion a net negative adjustment is required.

**Zoning and Use**

The subject property is zoned Rs-2, Single-Family Residential District which allows residential uses and F-1, Floodplain District which allows culverts and public utilities. Sale Nos. 1 and 2 do not have additional zoning. Sale No. 3 has Upland Conservancy but in our opinion does not require adjustment. All sales have similar residential zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 |
|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $52,500 | | $130,000 | | $300,000 |
| Date of Sale | | -- | Feb-22 | | Oct-21 | | Sep-21 |
| Net Site Size (SF) | | 135,450 | 35,954 | | 23,893 | | 91,929 |
| Price/SF | | -- | $ 1.46 | | $ 5.44 | | $ 3.26 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Time/Market Conditions | | | 0.00% | | 0.00% | | 0.00% |
| | | | $ - | | $ - | | $ - |
| Current CE Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| DIRECT ADJUSTMENTS | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 10.0% | | 0.0% | | 10.0% |
| | | | $ 0.15 | | $ - | | $ 0.33 |
| Total Direct Adjustments | | | $ 0.15 | | $ - | | $ 0.33 |
| Adjusted CE Sale Price/SF | | | $ 1.61 | | $ 5.44 | | $ 3.59 |
| PERCENTAGE ADJUSTMENTS | | | | | | | |
| Size (SF) | 135,450 | | 35,954 | | 23,893 | | 91,929 |
| | | | Smaller | | Smaller | | Smaller |
| | | | -20% | | -20% | | -10% |
| | | | $ (0.32) | | $ (1.09) | | $ (0.36) |
| Market Area/Location | Pewaukee | | Similar | | Superior | | Similar |
| | | | 0% | | -20% | | 0% |
| | | | $ - | | $ (1.09) | | $ - |
| Access/Visibility | Average/Average | | Similar | | Similar | | Inferior |
| | | | 0% | | 0% | | 5% |
| | | | - | | - | | 0.18 |
| Other Physical Features | Rectangular | | Superior | | Superior | | Superior |
| | | | -10% | | -15% | | -5% |
| | | | (0.16) | | (0.82) | | (0.18) |
| Zoning | Rs-2, F-1 | | Rs-3 | | Rs-5 | | Rs-3, UC |
| | | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ (0.48) | | $ (2.99) | | $ (0.36) |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **1.12** | | **2.45** | | **3.23** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 2.27** | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$1.70** | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **135,450** | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 230,265** | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 230,300** | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $1.12 to $3.23 per square foot, with an average of $2.27 per square foot. Primary weight was placed on Sale No. 1 because it is located on Duplainville Road near the subject site and was a very recent sale. Secondary support was provided from Sale Nos. 2 and 3. Based on this analysis, the subject property is estimated to have a unit value at $1.70 per square foot, between all three sales, which are all deemed similar to the subject site.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 135,450 | X | $1.70 | = | $230,265 |

**Value Indication (Rounded): $230,300**

**Before Value**

The total "before" value is $401,900 ($230,300 - land + $171,600 - improvements, per assessment, rounded).

**Valuation of Permanent Limited Easement**

One Permanent Limited Easement of 0.01003-acres or approximately 437-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.02 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

It is our opinion that the Permanent Limited Easement area has some, but limited utility to the owner after the acquisition due to the presence of the culvert. The easement is located in the building setback area, hence, an area where improvements are not allowed to be built. The damages for Permanent Limited Easement are estimated at 50 percent of fee value of $1.70 per square foot ($1.70/SF X 50%), or $0.85 per square foot due to the loss of utility to the subject property in the "after" condition.

**Acquired Land Value Conclusion – Permanent Limited Easement**

**Acquired Land Value**
**Permanent Limited Easement**

| SF | X | Value/SF | = | Value |
|---|---|---|---|---|
| 437 | X | $0.85 | = | $372 |

**Land Value Indication (Rounded): $400**


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**Valuation of Site Improvements**

The lawn within the Permanent Limited Easement area will be replaced in like kind as part of the construction project. According to the Project Engineer, Ashley Pridemore, there are two large and three small evergreen trees within the acquisition area that will be acquired by the project. Industry standards indicate that landscaping contributory value typically ranges from approximately 2 to 10 percent of the total value of similar properties, land and improvements combined. The improvements are at market standards for the area and similar properties. The estimated contributory percentage is estimated at the mid-range due to the quality, quantity, and increased market value of the improvements not reflected in the current assessed value, at 5 percent of the total approximate market value ($401,900) or approximately $20,095. The percentage of the landscaping acquired is approximately 10 percent, yielding a contributory value of the acquired landscaping of $2,009.50; $2,100 - rounded.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $401,900 ($228,200 - land + $171,600 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $399,800 |
| Loss in Market Value: | $2,100 |
| Permanent Limited Easement: | $400 |
| **Total Damages (Rounded):** | $2,500 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$2,100** |
| **Permanent Limited Easement:** | **$400** |
| **Total:** | **$2,500** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT PROPERTY LOOKING EAST**



**PLE LOOKING EAST**


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PLE LOOKING SOUTH

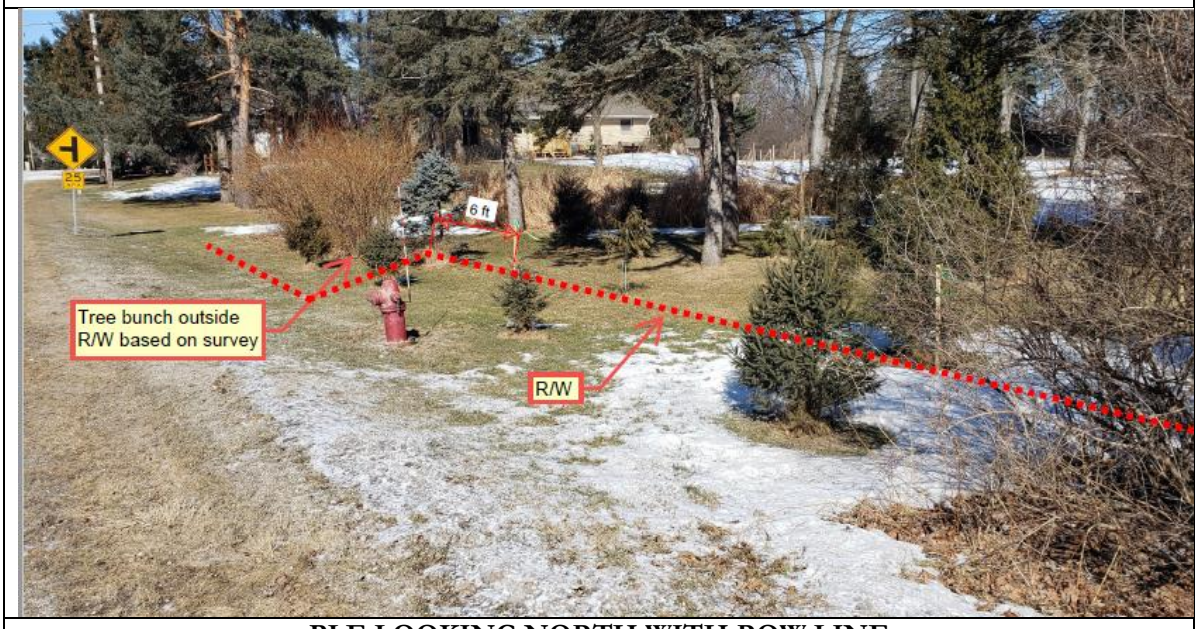



PLE LOOKING SOUTH WITH ROW LINE


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**PLE LOOKING NORTH**




**PLE LOOKING NORTH WITH ROW LINE**


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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**LAND SALE NO. 1**



**Property Identification**

| | |
|---|---|
| Location: | Lot 1 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.8254-acres or 35,955-square feet |
| Zoning: | Rs-3 Single-Family Residential District |
| Topography: | Generally level |
| Utilities: | Sewer available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0868996001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 11, 2022 |
| Sale Price: | $52,500 |
| Sale Price/SF: | $1.46 |
| Sale Price/Acre: | $63,606 |
| Grantor: | H&F Properties, LLC |
| Grantee: | Tyler Morgan |
| Document No.: | 4651813 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor Anthony Kersten of Cherry Home Realty – listing agent, Sarah Keily of Shorewest – selling agent |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 1 of Certified Survey Map No. 2514, recorded in Waukesha County Register of Deeds on February 25, 1976,in Volume 18 of Certified Survey Maps, on Pages 173, 174and 175, as Document No. 941058, part of the Southwest 1/4of the Southeast 1/4, and the Southeast 1/4 of the Southwest1/4 of Section 1, Township 7 North, Range 19 East, in the City of Pewaukee, County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the east side of Duplainville Road near the subject site and just north of Capitol Drive and south of Weyer Road. The property has average access and visibility with generally level topography. The property is zoned Rs-3 and allows for single-family residential uses. Sewer service is available not water. The property was listed for sale twice in the past two years. The first listing was March 20, 2020 for $65,000, which expired after 184 days. The second listing began February 18, 2021 for an asking price of $65,000. Days on Market (DOM) reached 329 days before the sale at $52,500. Based on a discussions with the listing and selling agents the buyers intend to build a single-family house. The listing agent indicated that the sale price was below the list price because the buyer will need to extend water service from the west side of Duplainville Road to the east side where the property is located. The sale is located on the project road.

**Parcel Map**





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**LAND SALE NO. 2**



**Property Identification**

| | |
|---|---|
| Location: | Lot 14 Wyndemere Court<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.5485-acres or 23,893-square feet |
| Zoning: | Rs-5 Single-Family Residential District |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0910071 |

**Sale Data**

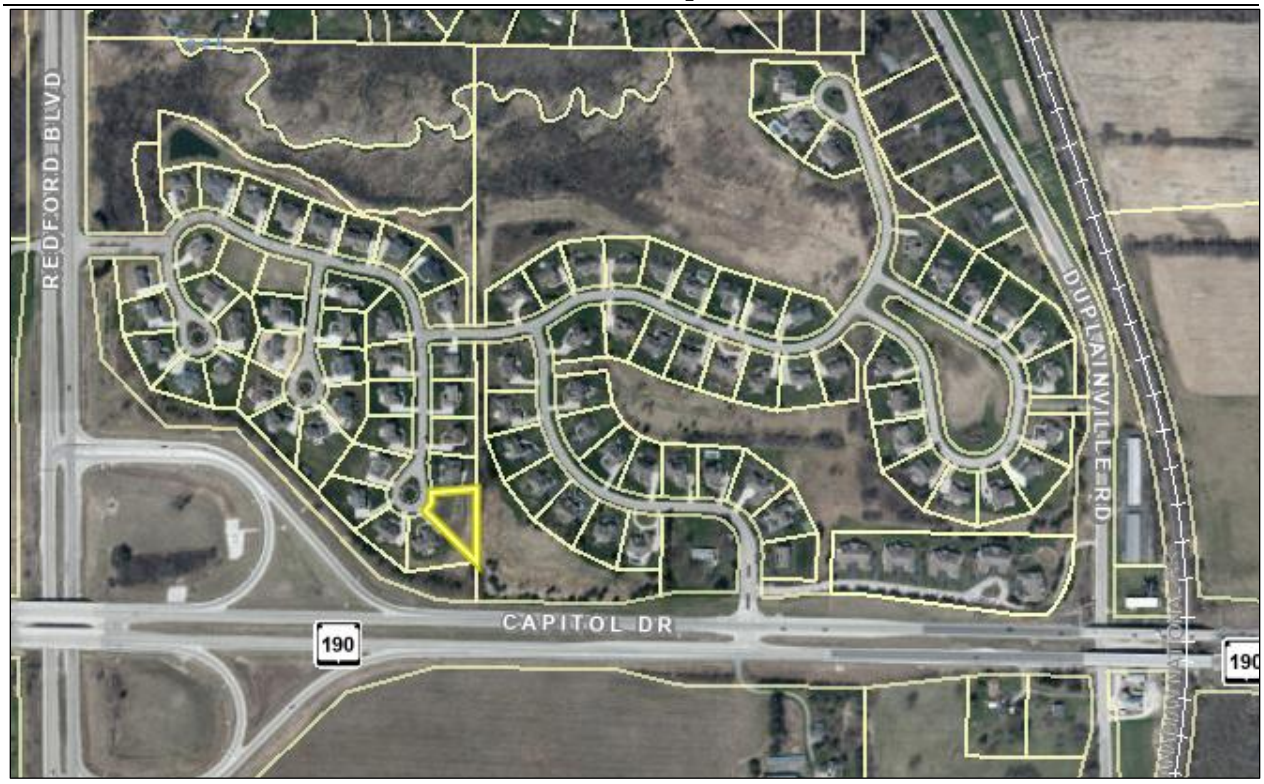
| | |
|---|---|
| Date of Sale: | October 29, 2021 |
| Sale Price: | $130,000 |
| Sale Price/SF: | $5.44 |
| Sale Price/Acre: | $237,010 |
| Grantor: | D&B Mierow, LLC |
| Grantee: | Denali Realty Group, LLC |
| Document No.: | 4631192 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot Fourteen (14), together with an undivided interest inOutlots 1, 2, 3, 4 and 5, all in Wyndemere, being aSubdivision of a part of the Northwest One-quarter (1/4) andSouthwest One-quarter (1/4) of the Northwest One-quarter(1/4) of Section Twelve (12), Township Seven (7) North,Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, and an affidavit of Correction recorded on June 8, 2005, as Document No. 3283892. |

**Comments:**


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The parcel is located along the east side of Wyndemere Court, just west of Duplainville Road, east of Redford Boulevard, and north of Capitol Drive. The property has average access and visibility with generally level topography. The property is zoned Rs-5 and allows for single-family residential uses. Water and sewer service are available.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | Lot 2 Glacier Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 2.1104-acres or 91,929-square feet |
| Zoning: | Rs-3 Single-Family Residential District/UC, Upland Conservancy |
| Topography: | Generally Level, downwards sloping to south, wooded |
| Utilities: | Sewer Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0890999006 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | September 30, 2021 |
| Sale Price: | $300,000 |
| Sale Price/SF: | $3.26 |
| Sale Price/Acre: | $142,153 |
| Grantor: | Gary R. Klatt |
| Grantee: | Andrew and Candace Johnson |
| Document No.: | 4624166 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot 2 and Outlot 2 of Certified Survey Map No. 11922, being a redivision of all of Lots 1, 2 and 3 of Certified Survey Map No.8822 being a division of Lot 2 of Certified Survey Map No.4581 being part of the Southeast 1/4 of the Southwest 1/4Section 6 and the Northeast 1/4 of the Northwest 1/4 of Section 7, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on October 15, 2019 in Book 120, Pages 301-305, as Document No. 4428613. |

**Comments:**


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The parcel is located along the south side of Glacier Road, just east of North Shore Drive and south of Hwy 16. The property has below-average access and visibility with generally level topography with downward sloping to the south. The property is bifurcated with a non-contiguous area located on Pewaukee Lake. Parcel 999011 and a rail system separate these two areas of the parcel. The property is zoned Rs-3 and Upland Conservancy and allows for single-family residential uses. Sewer service is available not water. The property was marketed as having a view of Pewaukee Lake.

**Parcel Map**



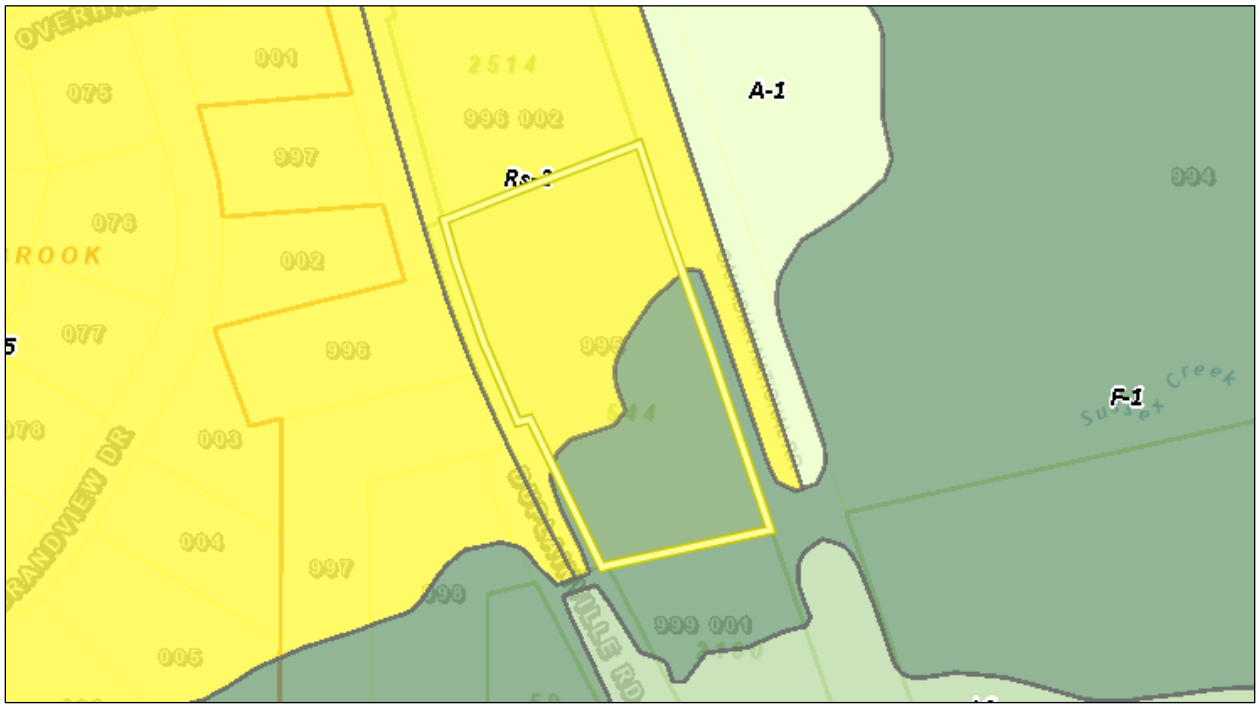


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# ADDENDUM D
# ZONING MAP & CODE


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 30 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0406 Rs-2, SINGLE-FAMILY RESIDENTIAL DISTRICT**
The Rs-2, Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre.
a. Permitted Principal Uses
(1) One Single-family dwelling with attached or detached garages as defined in section 17.1402.
(2) Foster homes and community living arrangements, including CBRFs, as set forth in Wisconsin Statutes.
(3) Family day-care home as set forth in Section 66.1017 of Wisconsin Statutes.
b. Permitted Accessory Uses
(1) Home occupations and professional home offices as defined herein.
(2) Yard and gardening equipment storage structures not exceeding 192 square feet in area. (Also see section 17.0700).
(3) Hobby Kennels. (Cr. 13-09)
c. Repealed 13-09
d. Lot Area and Width
(1) Lots shall have a minimum area of 2.0 net acres.
(2) Lots shall have a width of not less than 220 feet at the building setback line.
e. Building Height and Size
(1) No principal building or parts of a principal building shall exceed 35 feet in height.
(2) No accessory structure shall be more than 18 feet in height.
(3) The minimum floor area of one or two-story dwelling unit shall be as follows:


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| Number of Bedrooms Per Dwelling | Unit Minimum | Total Area Minimum First Floor Area |
|---|---|---|
| One | 1,200 square feet | 1,200 square feet |
| Two | 1,300 square feet | 1,200 square feet |
| Three | 1,500 square feet | 1,200 square feet |
| Four or More | 1,700 square feet | 1,200 square feet |

No bedroom shall be less than 100 square feet in area exclusive of closets.
(4) The sum total of the first floor area of the principal building and all accessory buildings shall not exceed 6.0 percent of the lot area.
f. Setback and Yards
(1) There shall be a minimum building (or street) setback of 45 feet from the right-of-way of all public streets, roads, or highways.
(2) There shall be a side yard on each side of all structures not less than 25 feet in width.
(3) There shall be a rear yard of not less than 35 feet.
(4) There shall be a minimum building setback of 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see sub-section 17.0435)
(5) There shall be a minimum set back of 100 feet from any abutting property for any building primarily used for housing or sheltering animals.
g. Parking Space
See Section 17.0600
h. Minimum Utility Service
Electricity, approved private water supply, and an approved on-site soil absorption sanitary sewage disposal system. All on-site soil absorption sanitary disposal systems must be approved by the Waukesha County Health and Human Services Department prior to installation. Note: If public sanitary sewerage and/or water supply facilities are available to the property, no on-site sewage disposal system or private water supply system will be permitted to be constructed.

**CITY OF PEWAUKEE MUNICIPAL CODE 91 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0435 F-1, FLOODPLAIN DISTRICT. (Rep. & Rec. 08-12, 12-12, 14-14)**
The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. Also included within the F-1, Floodplain are those areas adjacent to the base flood designated by the Wisconsin Department of Natural Resources (WisDNR) as Flood Storage Districts (FSDs). The proper regulation of these areas will serve to maintain and improve water quality, prevent flood damage, protect wildlife habitat, and prohibit the location of walled structures, as defined herein, on lands, which are generally not suitable for such use due to possible flooding.
a. FINDING OF FACT


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Uncontrolled development and use of the floodplains and rivers of the City would impair the public health, safety, convenience, general welfare and tax base.
b. STATEMENT OF PURPOSE
This ordinance is intended to regulate floodplain development to:
(1) Protect life, health and property;
(2) Minimize expenditures of public funds for flood control projects;
(3) Minimize rescue and relief efforts undertaken at the expense of the taxpayers;
(4) Minimize business interruptions and other economic disruptions;
(5) Minimize damage to public facilities in the floodplain;
(6) Eliminate the occurrence of future flood blight areas in the floodplain;
(7) Eliminate the victimization of unwary land and homebuyers;
(8) Prevent increases in flood heights that could increase flood damage and result in conflicts between property owners; and
(9) Eliminate development in a floodplain, recognizing that there may be existing developed land lying within the delineated F-1, Floodplain District and there may be the need to locate public utilities or streets within the F-1, Floodplain District.
c. TITLE
This sub-section of the City Zoning Ordinance shall be commonly known as the 'Floodplain Ordinance' for the City of Pewaukee, Wisconsin.
d. STATUTORY AUTHORIZATION
This sub-section of the City Zoning Ordinance is adopted pursuant to the authorization in Sections 62.23 and 87.30 of Wisconsin Statutes as well as Ch. NR 116 of the Wisconsin Administrative Code which is included as Appendix 5 in this zoning ordinance.
e. GENERAL PROVISIONS
(1) AREAS TO BE REGULATED
This ordinance regulates all areas that would be covered by the regional flood or base flood as shown on the Flood Insurance Rate Map (FIRM) or other maps approved by DNR such as the WisDNR Flood Storage Districts (FSDs). Base flood elevations (BFE) are derived from the flood profiles in the Flood Insurance Study (FIS) and are shown as AE, A1-30, and AH Zones on the FIRM. Other regulatory zones are displayed as A and AO zones. Regional Flood Elevations (RFE) may be derived from other studies. If more than one map or revision is referenced, the most restrictive information shall apply.
(2) OFFICIAL MAPS & REVISIONS
The boundaries of the SFHA are designated on the maps listed in (3) below. Any change to the BFE or any changes to the boundaries of the floodplain or floodway in the FIS or on the FIRM must be reviewed and approved by the DNR and FEMA through the Letter of Map Change process (see 17.0435t Amendments) before it is effective. No changes to RFE's on non-FEMA maps shall be effective until approved by the DNR. These maps, profiles and revisions are on file in the City Planning, Public Works or Building Inspection offices at Pewaukee City Hall and may also be available in the Waukesha County Park and Land Use Department offices in the Courthouse. If more than one map or revision is referenced for the same area, the most restrictive information shall apply.
(3) OFFICIAL MAPS AND PROFILES: Based on the FIS:
Official FIRMs and Profiles Encompassing the City of Pewaukee are FIRM panel numbers:55133C0181G, 55133C0182G, 55133C0183G, 55133C0184G, 55133C0191G, 5133C0192G, 55133C0201G, 55133C0202G, 55133C0203G, 55133C0204G, 55133C0206G, 55133C0208G, 55133C0211G, 55133C0212G, 55133C0213G, 55133C0214G, 55133C0216G dated November 5, 2014; with corresponding profiles that are based on the Flood Insurance Study (FIS) dated February 9, 2014, and numbered: 55133CV001C, 55133CV002C, 55133CV003C. (Approved by: WisDNR and/or FEMA)
(4) MAPS BASED ON OTHER STUDIES:


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Flood Storage Map. Also included within the City's F-1, Floodplain District, are the flood storage districts as depicted on Waukesha County Wisconsin Flood Storage District Map Panels 3, 5 and 6, based on a WisDNR study dated November 5, 2014. Prepared and Approved by WisDNR.
(5). ESTABLISHMENT OF FLOODPLAIN ZONING DISTRICT
The F-1, Floodplain as defined in this City Zoning Ordinance includes:
All land and water area lying within the boundary of the SFHA as defined above plus any FSD.
(6) LOCATING FLOODPLAIN BOUNDARIES
Discrepancies between boundaries on the official floodplain zoning map and actual field conditions shall be resolved using the criteria in (a) or (b) below. If a significant difference exists, the map shall be amended according to section 17.0435t Amendments. The zoning administrator can rely on a boundary derived from a profile elevation to grant or deny a land use permit, whether or not a map amendment is required. The zoning administrator shall be responsible for documenting actual pre-development field conditions and the basis upon which the district boundary was determined and for initiating any map amendments required under this section. Disputes between the zoning administrator and an applicant over the district boundary line shall be settled according to section 17.1007 and the criteria in (a) and
(b) below. Where the flood profiles are based on established base flood elevations from a
FIRM, FEMA must approve any map amendment or revision pursuant to section 't' Amendments of this sub-section.
(a) If flood profiles exist, the map scale and the profile elevations shall determine the district boundary. The regional or base flood elevations shall govern if there are any discrepancies.
(b) Where flood profiles do not exist for projects, the location of the boundary shall be determined by the map scale.
(7) REMOVAL OF LANDS FROM FLOODPLAIN
Compliance with the provisions of this ordinance shall not be grounds for removing land from the floodplain unless it is filled at least two feet above the regional or base flood elevation, the fill is contiguous to land outside the floodplain, and the map is amended pursuant to section 't' Amendments of this sub-section.
In addition, no floodplain may be filled and no walled structure built within the SFHA or FSDs with the exception of the construction of public utility and transportation facilities required by a unit/agency of government, or an approved structure requiring water frontage which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District unless:
(a) Said land has been previously filled prior to the effective date of the adoption on this amendment so that the elevation of the lowest floor (including basement) of any existing or proposed walled structure or building is at least two feet above the base flood elevation;
(b) The proposed filled land does not form an island and can be accessed from other surrounding lands without entering the F-1, Floodplain District;
(c) There is an area of land outside the F-1, Floodplain District but adjacent to and on the same property as the proposed filled land equal to at least four (4) times the areal extent and volume of the proposed filled area that is added to the F-1, Floodplain District based on plans approved by the City Plan Commission;
(d) The height of the downstream base flood is not increased by proposed fill;
(e) The floodplain boundaries shown on all official maps are amended pursuant to section 'n' of this sub-section; and
(f) A study is prepared and certified by a state registered professional engineer, establishing that:
i. The fill, lowest floor and floodproofing elevation shall have no effect upon the base flood elevation either upstream or downstream and are in compliance with this ordinance; or
ii. The fill, lowest floor and floodproofing elevations may have the effect of raising the base flood elevation either upstream or downstream if otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Conditional Letter of Map Revision (CLOMR) prior to issuance of any local permit(s); or


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iii. The fill, lowest floor and floodproofing elevations may have the effect of lowering the base flood elevation either upstream or downstream and are otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Letter of Map Change (LOMC) prior to issuance of any local permit(s). Please also see subsection17.1108b and Appendix 5.

(8) COMPLIANCE

Any development or use within the areas regulated by this ordinance shall be in compliance with the terms of this ordinance, and other applicable local, state, and federal regulations.

(9) MUNICIPALITIES AND STATE AGENCIES REGULATED

Unless specifically exempted by law, all cities, villages, towns, and counties are required to comply with this ordinance and obtain all necessary permits. State agencies are required to comply if s.13.48(13) of Wisconsin Statutes applies. The construction, reconstruction, maintenance and repair of state highways and bridges by the Wisconsin Department of Transportation is exempt when s.30.2022 of Wisconsin Statutes applies.

(10) ABROGATION AND GREATER RESTRICTIONS

(a) This ordinance supersedes all the provisions of any City ordinance enacted under s. 62.23 or s.87.30 of Wisconsin Statutes., which relate to floodplains. A more restrictive ordinance shall continue in full force and effect to the extent of the greater restrictions, but not otherwise.

(b) This ordinance is not intended to repeal, abrogate or impair any existing deed restrictions, covenants or easements. If this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.

(11) INTERPRETATION

In their interpretation and application, the provisions of this ordinance are the minimum requirements liberally construed in favor of the City and are not a limitation on or repeal of any other powers granted by the Wisconsin Statutes. If a provision of this ordinance or ch. NR 116, Wis. Adm. Code is unclear, the provision shall be interpreted in light of the standards in effect on the date of the adoption of this ordinance or in effect on the date of the most recent text amendment to this ordinance.

(12) WARNING AND DISCLAIMER OF LIABILITY

The flood protection standards in this ordinance are based on engineering experience and scientific research related to a 100 year recurrence interval flood event (one percent change in any year). Larger floods may occur or the flood height may be increased by man-made or natural causes. This ordinance does not imply or guarantee that non-floodplain areas or permitted floodplain uses will be free from flooding and flood damages. This ordinance does not create liability on the part of, or a cause of action against, the city or any officer or employee thereof for any flood damage that may result from reliance on this ordinance.

(13) SEVERABILITY

Should any portion of this ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected.

(14) ANNEXED AREAS

The Waukesha County floodplain zoning provisions in effect on the date of annexation of town lands shall remain in effect and shall be enforced by the city for all annexed areas until the city adopts and enforces an ordinance which meets the requirements of ch. NR 116, Wis. Adm. Code and 44 CFR 59-72, National Flood Insurance Program (NFIP). These annexed lands are described on the city's official zoning map. County floodplain zoning provisions are incorporated by reference for the purpose of administering this section and are on file in the office of the city zoning administrator. All plats or maps of annexation shall show the regional or base flood elevation and the floodway location.

f. GENERAL STANDARDS APPLICABLE TO ALL FLOODPLAIN DISTRICTS (Also see section 17.0200 of this ordinance)

The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a


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base flood floodplain as defined herein except as set forth in sections 'k(3)' and 'l(2)' of this sub-section, and subsection
17.0436. All new construction and permitted structural improvements to existing buildings/structures within a floodplain shall be designed or modified so as to adequately anchor such structure or building to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads; be constructed with materials resistant to flood damage; be constructed by methods and practices that minimize flood damages; and be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. In addition to the requirements of Chapter 18 (Land Division Ordinance) of City Codes and Ordinances, subdivision of land shall be reviewed for compliance with the above standards and no newly created building parcel less than ten (10) acres in size shall be located within a base flood floodplain. (see section 'l (2)' of this sub-section). Adequate drainage shall be provided to reduce exposure to flood hazards and all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damages. All proposed land development plans, including land divisions and manufactured mobile home parks shall include BFE data for any land division or development that meets the definition within this zoning ordinance or Chapter 18 of the City Codes and Ordinances. (See www.cityofpewaukee.us)
g. HYDRAULIC AND HYDROLOGIC ANALYSES
(1) No building or development shall:
(a) Obstruct natural storm water flow, defined as development which blocks the conveyance of floodwaters by itself or with other development, causing any increase in the regional or base flood height; or
(b) Cause any increase in the regional or base flood height due to floodplain storage area lost.
(2) The zoning administrator shall deny permits if it is determined the proposed development will obstruct flow or cause any increase in the regional or base flood height, based on the officially adopted FIRM or other adopted map, unless the provisions of section 't' Amendments of this sub-section are met.
h. WATERCOURSE ALTERATIONS
No land use permit to alter or relocate a watercourse in a mapped floodplain shall be issued until the local official has notified in writing all adjacent municipalities, the WisDNR (Department) and FEMA regional offices, and required the applicant to secure all necessary state and federal permits. The standards of section 'g' of this sub-section must be met and the flood carrying capacity of any altered or relocated watercourse shall be maintained. As soon as is practicable, but not later than six months after the date of the watercourse alteration or relocation and pursuant to section 't' Amendments of this sub-section, the City shall apply for a Letter of Map Revision (LOMR) from FEMA. Any such alterations must be reviewed and approved by FEMA and the WisDNR through the LOMC process.
i. CHAPTER 30, 31of WISCONSIN STATUTES DEVELOPMENT
Approved development which requires a permit from the Department, under chs. 30 and 31 of Wisconsin Statutes, such as docks, piers, wharves, bridges, utilities, public streets/highways, culverts, dams and navigational aids, may be allowed if the necessary permits are obtained and any amendments to the floodplain zoning ordinance are made according to section 't' Amendments of this sub-section.
j. PUBLIC OR PRIVATE CAMPGROUNDS
Public or private campgrounds, as defined herein, shall not be located within the F-1,
Floodplain District.
k. PERMITTED USES IN THE F-1, FLOODPLAIN DISTRICT
The following open space uses are allowed in the F-1, Floodplain District if they are not prohibited by any other ordinance; they meet the standards in sections 'l' and 'm' of this sub-section; and, all permits or certificates have been issued according to section 'p(1)' of this sub-section.
(1) Non-structural agricultural uses, such as: general farming, outdoor plant nurseries, horticulture, viticulture and wild crop harvesting.
(2) Non-structural industrial and commercial uses, such as loading areas, parking areas and airport landing strips.


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(3) Non-structural recreational uses, such as golf courses, tennis courts, archery ranges, picnic grounds, boat ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting, trap and skeet activities, hunting and fishing areas and hiking and horseback riding trails, subject to the fill limitations of section 'l(5)' of this subsection.
(4) Uses or non-walled structures accessory to open space uses, or classified as historic structures that comply with sections 'l' and 'm' of this sub-section.
(5) Extraction of sand, gravel or other earth materials that comply with section 'l(5)' of this sub-section.
(6) Functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes.
(7) Public utilities, streets/highways and bridges that comply with section 'l(4)' of this subsection.
l. STANDARDS FOR DEVELOPMENT IN THE F-1, FLOODPLAIN DISTRICT
Any existing or proposed development within the SFHA and FSDs must adhere to the requirements of this ordinance.
(1) GENERAL
(a) Any permitted development in the SFHA shall comply with section 'f' of this subsection and have a low flood damage potential.
(b) Applicants shall provide the following data to determine the effects of the proposal according to sections 'g' and 'q' of this sub-section:
i. A cross-section elevation view of the proposal, perpendicular to the watercourse, showing if the proposed development will obstruct flow; or
ii. An analysis performed by a state registered professional engineer calculating the effects of the proposal on regional or base flood height.
(c) The zoning administrator shall deny the permit application if the project will cause any increase in the flood elevations upstream or downstream, based on the data submitted for (b) above.
(2) STRUCTURES
Structures accessory to permanent open space uses or functionally dependent on a waterfront location such as an approved boathouse or boat dock may be allowed by permit if the structures comply with all the following criteria:
(a) Not designed for human habitation, does not have a high flood damage potential and is constructed to minimize flood damage;
(b) Has a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, and the bottom of all such openings being no higher than one foot above grade. The openings shall be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Must be anchored to resist flotation, collapse, and lateral movement;
(d) Mechanical and utility equipment must be elevated or flood proofed above the flood protection elevation; and
(e) Must not obstruct flow of flood waters or cause any increase in flood levels during the occurrence of the regional or base flood.
(3) FLOODPROOFING FOR NON-RESIDENTIAL STRUCTURES
Actions or measures designed to reduce or prevent flood damage must be taken for those buildings or structures which cannot be removed from the floodplain or, if substantially damaged, must be erected within the floodplain, including but not limited to the following: structural modification; installation of special equipment such as water extraction equipment; addition of operation and management safeguards; supplemental underpinning and reinforcement of floors; reinforcement of walls; sealing of doors and windows and other exterior openings; anchoring of buoyant tanks and material; erection of watertight bulkheads, windows and doors; waterproof treatment of exposed wood; elevation of flood vulnerable utilities and mechanical equipment; use of masonry construction with waterproof mortar; installation of submersible sump pumps; placement of backflow and automatic swing check valves; installation of wire reinforced glass;


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placement of drain plugs and flood drain pipes; and removal of anything that will float or be damaged by water or flood borne debris. These and any other floodproofing measures should be extended to at least two feet above the BFE. Most of the aforementioned measures require a building permit issued by the City Building Inspector. All floodproofing measures must be certified by a registered professional engineer or architect.

(4) PUBLIC UTILITIES, STREETS AND BRIDGES

Public utilities, streets and bridges may be allowed by permit, if:

(a) Adequate floodproofing measures are provided to the flood protection elevation; and

(b) Construction meets the development standards of section 'g' of this sub-section.

(5) FILL OR DEPOSITION OF MATERIALS

No floodplain may be filled and no walled structure built within the F-1, Floodplain as defined herein with the possible exception of the construction of required public utility and transportation facilities and structures requiring a waterfront location, which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District. PLEASE SEE SUBSECTION 17.0435e(7), ABOVE as well as subsection 17.1108b and Appendix 5.

m. PROHIBITED USES

All uses not listed as permitted uses in section 'k' of this sub-section are prohibited, including the following uses:

(1) Walled structures, structures with high flood damage potential, or those not associated with permanent open-space uses, including mobile homes and recreation vehicles;

(2) Stored materials that are buoyant, flammable, explosive, injurious to property, water quality, or human, animal, plant, fish or other aquatic life;

(3) Uses not in harmony with or detrimental to uses permitted in the adjoining zoning districts;

(4) Any private or public on-site wastewater treatment/disposal system, except portable latrines that are removed prior to flooding and systems associated with recreational areas and Department-approved campgrounds that meet the applicable provisions of local ordinances and ch. SPS 383 of the Wisconsin Administrative Code;

(5) Any public or private wells which are used to obtain potable water, except those for recreational areas that meet the requirements of local ordinances and chs. NR 811 and NR 812 of the Wisconsin Administrative Code;

(6) Any solid, liquid, or hazardous waste disposal sites;

(7) Any wastewater treatment ponds or facilities, except those permitted under s. NR 110.15(3)(b) of the Wisconsin Administrative Code;

(8) Any sanitary sewer or water supply lines, except those to service existing or proposed development located outside the floodway which complies with the regulations set forth herein;

(9) Storm water management retention or detention ponds;

(10) Any use requiring excavation or grading except those uses listed in section 'g' of this sub-section;

(11) Storage of materials such as compost, mulch, gravel, soil, fill (clean or unclean).

n. FLOOD STORAGE DISTRICT (FSDs) OF THE F-1, FLOODPLAIN

A 'FSD' is that portion of the floodplain where storage of floodwaters has been taken into account and is relied upon to reduce the regional or base flood discharge. The FSD protects the flood storage areas and assures that any development in the storage areas will not decrease the effective flood storage capacity which would cause higher flood elevations.

(1) APPLICABILITY

The provisions of this section apply to all areas within the FSDs, as shown on the official floodplain zoning maps.

(2) PERMITTED USES

Any use or development which occurs in a flood storage district must meet the applicable requirements in section 'l' of this sub-section.


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o. NON-CONFORMING STRUCTURES AND USES IN THE F-1, FLOODPLAIN DISTRICT
If these standards conform to s. 62.23(7)(h) of Wisconsin Statutes, they shall apply to all modifications or additions to any nonconforming use or structure and to the use of any structure or premises which was lawful before the passage of this ordinance or any amendment thereto.
(1) GENERAL
The existing lawful use of a structure or its accessory use which is not in conformity with the provisions of this ordinance may continue subject to the following conditions:
(a) No modifications or additions to a nonconforming use or structure shall be permitted unless they comply with this ordinance. The words "modification" and "addition" include, but are not limited to, any alteration, structural repair, rebuilding or replacement of any such existing use, structure or accessory structure or use. Maintenance is not considered a modification and includes painting, decorating, paneling and other nonstructural components and the maintenance, repair or replacement of existing private sewage or water supply systems or connections to public utilities. Any costs associated with the repair of a damaged structure are not considered maintenance. For the purposes of this subsection of the zoning ordinance, the construction of a deck that does not exceed 200 square feet and that is adjacent to the exterior wall of a principal structure is not a modification or addition. The roof of the structure may extend over a portion of the deck in order to provide safe ingress and egress to the principal structure.
(b) If a nonconforming use or the use of a nonconforming structure is discontinued for 12 consecutive months, it is no longer permitted and any future use of the property, and any structure or building thereon, shall conform to the applicable requirements of this ordinance;
(c) The city shall keep a record which lists all nonconforming uses and nonconforming structures, their present equalized assessed value, the cost of all modifications or additions which have been permitted, and the percentage of the structure's total current value those modifications represent;
(d) No modification or addition to any nonconforming structure or any structure with a nonconforming use, which over the life of the structure would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section. The cost of elevating the lowest floor of a nonconforming building or a building with a nonconforming use to the flood protection elevation is excluded from the 50% provisions of this paragraph;
(e) No maintenance to any nonconforming structure or any structure with a nonconforming use, the cost of which would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(f) If on a per event basis the total value of the work being done under (d) and (e) equals or exceeds 50% of the present equalized assessed value, the work shall not be permitted unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(g) Except as provided in section 'l' of this sub-section, if any nonconforming structure or any structure with a nonconforming use is destroyed or is substantially damaged, it cannot be replaced, reconstructed or rebuilt unless the use and the structure meet the current ordinance requirements. A structure is considered substantially damaged if the total cost to restore the structure to its pre-damaged condition equals or exceeds 50% of the structure's current equalized assessed value.
(h) For nonconforming buildings that are substantially damaged or destroyed by a non-flood event, the repair or reconstruction of any such nonconforming building shall be permitted in order to restore it to the size and use in effect prior to the damage event, provided that the requirements below are met and all required permits have been granted prior to the start of construction.
(2) RESIDENTIAL STRUCTURES


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(a) Structures shall have the lowest floor, including basement, elevated to or above the base flood elevation using fill, pilings, columns, posts or perimeter walls. Perimeter walls must meet the requirements of section 'o(4)' of this sub-section.
(b) Structures shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and shall be constructed with methods and materials resistant to flood damage.
(c) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
(d) Owners of structures in the SFHA must obtain, review and utilize any flood data available from a federal, state or other source.
(e) Structures in the SFHA with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section and adequate drainage paths or swales shall be placed around the structures on slopes to guide flood waters around and away from the structure without being diverted to adjacent properties without permission.
(3) NON-RESIDENTIAL STRUCTURES
(a) Structures shall meet the requirements of section 'o(2) a-e' of this sub-section.
(b) Structures shall either have the lowest floor, including basement, elevated to or above the regional or base flood elevation; or, together with attendant utility and sanitary facilities, shall meet the standards in section 'o(4)(a) and o(4)(b)' of this sub-section. A registered professional engineer or architect must certify that the perimeter walls shall be constructed so as to protect the structure.
(c) Structures in AO Zones with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section.
(4) FLOODPROOFING STANDARDS FOR NONCOMFORMING STRUCTURES OR USES – NON-RESIDENTIAL STRUCTURES
(a) No permit or variance shall be issued for a non-residential structure designed to be watertight below the regional or base flood elevation until the applicant submits a plan certified by a registered professional engineer or architect that the floodproofing measures will protect the structure or development to the flood protection elevation and submits a FEMA Floodproofing Certificate.
(b) For a structure designed to allow the entry of floodwaters, no permit or variance shall be issued until the applicant submits a plan either:
i. certified by a registered professional engineer or architect; or
ii. meets or exceeds the following standards:
1. a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. the bottom of all openings shall be no higher than one foot above grade; and
3. openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Floodproofing measures shall be designed, as appropriate, to:
i. Withstand flood pressures, depths, velocities, uplift and impact forces and other regional flood factors;
ii. Protect structures to the flood protection elevation;
iii. Anchor structures to foundations to resist flotation and lateral movement;
iv. Minimize or eliminate infiltration of flood waters; and
v. Minimize or eliminate discharges into flood waters.
(5) OFFICIALLY DESIGNATED HISTORIC STRUCTURES
A nonconforming historic structure may be altered if: the alteration will not preclude the structure's continued designation as a historic structure; the alteration will comply with section 'l' of this sub-section; flood resistant materials are used; and construction practices and floodproofing methods that comply with section 'o' of this sub-section are used. Repair or rehabilitation of historic structures shall be exempt from the development standards of section 'o(2)' of this sub-section if it is determined that the proposed repair or


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rehabilitation will not preclude the structure's continued designation as a historic structure and is the minimum necessary to preserve the historic character and design of the structure.
(6) STRUCTURES IN A FLOOD STORAGE DISTRICT (FSD)
No modifications or additions shall be allowed to any nonconforming structure in a flood storage area unless the standards outlined in section 'n' of this sub-section are met.
p. ADMINISTRATION
(1) ZONING ADMINISTRATOR – DUTIES AND POWERS (see 17.0203 &17.1000)
The zoning administrator is authorized to administer this ordinance and shall have the following duties and powers:
(a) Attend all meetings of the Zoning Board of Appeals.
(b) Advise applicants of the ordinance provisions, assist in preparing permit applications and appeals, and assure that the regional or base flood elevation for the proposed development is shown on all permit applications.
(c) Issue permits and inspect properties for compliance with provisions of this ordinance and issue certificates of compliance where appropriate.
(d) Inspect and assess all damaged floodplain structures to determine if substantial damage to the structures has occurred.
(e) Keep records of all official actions such as:
i. All permits issued, inspections made, and work approved;
ii. Documentation of certified lowest floor and regional or base flood elevations;
iii. Issuance of Floodproofing Certificates.
iv. Water surface profiles, floodplain zoning maps and ordinances, nonconforming uses and structures including changes, appeals, variances and amendments.
v. All substantial damage assessment reports for floodplain structures.
vi. List of nonconforming structures and uses.
(f) Submit copies of the following items to the Department Regional office:
i. Within 10 days of the decision, a copy of any decisions on variances, appeals for map or text interpretations, and map or text amendments;
ii. Copies of case-by-case analyses and other required information including an annual summary of floodplain zoning actions taken.
iii. Copies of substantial damage assessments performed and all related correspondence concerning the assessments.
(g) Investigate, prepare reports, and report violations of this ordinance to the City
Planner and City Attorney for prosecution. Copies of the reports shall also be sent to the Department Regional office.
(h) Submit copies of amendments to the FEMA Regional office.
(2) LAND USE PERMIT
A land use permit shall be obtained before any new development; repair, modification or addition to an existing structure; or change in the use of a building or structure, including sewer and water facilities, may be initiated. Application for a permit to the
City planner or zoning administrator shall include:
(a) GENERAL INFORMATION
i. Name and address of the applicant, property owner and contractor;
ii. Legal description, proposed use, and whether it is new construction or a modification.
(b) A SITE DEVELOPMENT PLAN
A site development plan drawn to scale shall be submitted with the permit application form and shall contain:
i. Location, dimensions, area and elevation of the lot or parcel;
ii. Location of the ordinary high water mark (OHWM) of any abutting navigable waterways;
iii. Location of any structures with distances measured from the lot lines and street center lines;
iv. Location of any existing or proposed on-site sewage systems or private water supply systems;


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v. Location and elevation of existing or future access roads;
vi. Location of floodplain and floodway limits as determined from the official floodplain zoning maps;
vii. The elevation of the lowest floor of proposed buildings and any fill using the vertical datum from the adopted study – either National Geodetic Vertical Datum
(NGVD) or North American Vertical Datum (NAVD);
viii. Data sufficient to determine the regional or base flood elevation in NGVD or NAVD at the location of the development and to determine whether or not the requirements of sections 'k, l, or m' of this sub-section are met; and
ix. Data to determine if the proposed development will cause an obstruction to flow or an increase in regional or base flood height or discharge according to section 'g' of this sub-section. This may include any of the information noted in section 'l(1)' of this sub-section.
(3) EXPIRATION
For the purposes of this subsection of this ordinance all permits issued for floodplain development shall expire no later than 180 days after issuance. The permit may be extended for up to 180 day for good and sufficient cause.
(4) OTHER PERMITS
Prior to obtaining a land use permit the applicant must obtain permits from all other federal, state, county and city permitting agencies, including but not limited to: the U.S. Army Corp of Engineers under the s. 404 of the Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1344.
q. HYDRAULIC AND HYDROLOGIC STUDIES TO ANALYZE DEVELOPMENT
All hydraulic and hydrologic studies shall be completed under the direct supervision of a state registered professional engineer. The registered professional engineer shall be responsible for the technical adequacy of the study. All studies shall be reviewed and approved by the Department.
(1) ZONE A FLOODPLAIN AREA
(a) HYDROLOGY
The appropriate method shall be based on the standards in ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODELING
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or Base Flood Elevation and the following:
i. Determination of the required limits of the hydraulic model shall be based on detailed study information for downstream structures (dam, bridge, culvert) to determine adequate starting WSEL for the study.
ii. Channel sections must be surveyed.
iii. Minimum four foot contour data in the overbanks shall be used for the development of cross section overbank and floodplain mapping.
iv. A maximum distance of 500 feet between cross sections is allowed in developed areas with additional intermediate cross sections required at transitions in channel bottom slope including a survey of the channel at each location.
v. The most current version of HEC-RAS shall be used.
vi. A survey of bridge and culvert openings and the top of road is required at each structure.
vii. Additional cross sections are required at the downstream and upstream limits of the development and any necessary intermediate locations based on the length of the reach if greater than 500 feet.
viii. Standard accepted engineering practices shall be used when assigning parameters for the base model such as flow, Manning's N values, expansion and contraction coefficients or effective flow limits. The base model shall be calibrated to past flooding data such as high water marks to determine the reasonableness of the model results. If no historical data is available, adequate justification shall be provided for any parameters outside standard accepted engineering practices.
ix. The model must extend past the upstream limit of the difference in the existing and proposed flood profiles in order to provide a tie-in to existing studies. The height difference between the proposed flood profile and the existing study profiles shall be no more than 0.00 feet.


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(c) MAPPING
A work map of the stream reach studied shall be provided, showing all cross section locations, floodway/floodplain limits based on best available topographic data, geographic limits of the development and whether the development is located in the floodway.
i. If the development is located outside of the floodway, then it is determined to have no impact on the regional or base flood elevation.
ii. If any part of the development is in the floodway, it must be added to the base model to show the difference between existing and proposed conditions. The study must ensure that all coefficients remain the same as in the existing model, unless adequate justification based on standard accepted engineering practices is provided.
(2) ZONE AE FLOODPLAIN AREA
(a) HYDROLOGY
If the proposed hydrology will change the existing study, the appropriate method to be used shall be based on ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODEL
The regional or base flood elevation shall be based on the standards in ch. NR
116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or base Flood Elevation and the following:
i. Duplicate Effective Model - The effective model shall be reproduced to ensure correct transference of the model data and to allow integration of the revised data to provide a continuous FIS model upstream and downstream of the revised stream reach. If data from the effective model is available, models shall be generated that duplicate the FIS profiles and the elevations shown in the Floodway Data Table in the FIS report to within 0.1 foot.
ii. Corrected Effective Model - The Corrected Effective Model shall not include any man-made physical changes since the effective model date, but shall import the model into the most current version of HEC-RAS for Department review.
iii. Existing (Pre-Project Conditions) Model - The Existing Model shall be required to support conclusions about the actual impacts of the project associated with the Revised (Post-Project) Model or to establish more up-to-date models on which to base the Revised (Post-Project) Model.
iv. Revised (Post-Project Conditions) Model - The Revised (Post-Project
Conditions) Model shall incorporate the Existing Model and any proposed changes to the topography caused by the development. This model shall reflect proposed conditions.
v. All changes to the Duplicate Effective Model and subsequent models must be supported by certified topographic information, bridge plans, construction plans and survey notes.
vi. Changes to the hydraulic models shall be limited to the stream reach for which the revision is being requested. Cross sections upstream and downstream of the revised stream reach shall be identical to those in the effective model and result in water surface elevations and top widths computed by the revised models matching those in the effective models upstream and downstream of the revised stream reach as required. The Effective Model shall not be truncated.
(c) MAPPING
Maps and associated engineering data shall be submitted to the Department for review which meet the following conditions:
i. Consistency between the revised hydraulic models, the revised floodplain and floodway delineations, the revised flood profiles, topographic work map, annotated FIRMs and/or Flood Boundary Floodway Maps (FBFMs), construction plans, bridge plans.
ii. Certified topographic map of suitable scale, contour interval, and a planimetric map showing the applicable items. If a digital version of the map is available, it may be submitted in order that the FIRM may be more easily revised.


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iii. Annotated FIRM panel showing the revised 1.0% and 0.2% annual chance floodplains and floodway boundaries.
iv. If an annotated FIRM and/or FBFM and digital mapping data (GIS or CADD) are used then all supporting documentation or metadata must be included with the data submission along with the Universal Transverse Mercator (UTM) projection and State Plane Coordinate System in accordance with FEMA mapping specifications.
v. The revised floodplain boundaries shall tie into the effective floodplain boundaries.
vi. All cross sections from the effective model shall be labeled in accordance with the effective map and a cross section lookup table shall be included to relate to the model input numbering scheme.
vii. Both the current and proposed floodways shall be shown on the map.
viii. The stream centerline, or profile baseline used to measure stream distances in the model shall be visible on the map.
(3) CERTIFICATE OF COMPLIANCE
For the purposes of this subsection, no land shall be occupied or used, and no building which is hereafter constructed, altered, added to, modified, repaired, rebuilt or replaced shall be occupied until approved by either the Zoning Administrator, City Planner, Plan Commission, Common Council or combinations of these persons or bodies as stipulated in section 17.0200 or elsewhere in this zoning ordinance, and only after the owner has submitted a certification signed by a registered professional engineer, architect or land surveyor that any fill and lowest floor and floodproofing elevations are in compliance with the permit issued. Floodproofing measures also require certification by a registered professional engineer or architect that floodproofing measures meet the requirements of this subsection.
r. ZONING BOARD OF APPEALS (ZBA)
(PLEASE SEE SUBSECTION 17.1000 OF THIS ORDINANCE)
s. PUBLIC INFORMATION
The Zoning Administrator and authorized assistants, the City Planner and other City staff involved in interaction with the public and the media shall provide any electronic, written or verbal information regarding floodplains upon request. In addition they shall:
(1) Keep current records of local flooding;
(2) Retain all available official floodplain maps and documents for ready use;
(3) Provide flood information to other state, county and local agencies and, when possible, mark previously flood inundated structures to show the level of inundation.
(4) Retain any real estate transfers showing in what floodplain district any real property is located.
t. AMENDMENTS
Obstructions or increases may only be permitted if amendments are made to this subsection of the zoning ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section.
(1) In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a CLOMR from FEMA and amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section. Any such alterations must be reviewed and approved by FEMA and the DNR.
(2) The governing body shall change or supplement the floodplain zoning district boundaries and this ordinance in the manner outlined in section 't(3)' of this sub-section below. Actions which require an amendment to the ordinance and/ or submittal of a LOMC include, but are not limited to, the following:
(a) Any fill or floodway encroachment that obstructs flow causing any increase in the regional or base flood height;
(b) Any change to the floodplain boundaries and/or watercourse alterations on the FIRM;
(c) Any changes to any other officially adopted floodplain maps listed in section 'e(4)' of this sub-section;
(d) Any floodplain fill which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain;


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(e) Correction of discrepancies between the water surface profiles and floodplain maps;
(f) Any upgrade to a floodplain zoning ordinance text required by s. NR 116.05, Wis.
Adm. Code, or otherwise required by law, or for changes by the city; and
(g) All channel relocations and changes to the maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a BFE from a FIRM requires prior approval by FEMA.
(3) Ordinance amendments may be made upon petition of any party according to the provisions of s. 62.23 of Wisconsin Statutes. The petitions shall include all data required by section 'p(2)' of this sub-section. The Building and/or Land Use Permit shall not be issued until a LOMR is issued by FEMA for the proposed changes.
(a) The proposed amendment shall be referred to the City Plan Commission for a public hearing and recommendation to the governing body. The amendment and notice of public hearing shall be submitted to the Department Regional office for review prior to the hearing. The amendment procedure shall comply with the provisions of s. 62.23 of the Wisconsin Statutes.
(b) No amendments shall become effective until reviewed and approved by the
Department.
(c) All persons petitioning for a map amendment that obstructs flow causing any increase in the regional or base flood height, shall obtain flooding easements or other appropriate legal arrangements from all adversely affected property owners and notify local units of government before the amendment can be approved by the governing body.
u. ENFORCEMENT AND PENALTIES
Any violation of the provisions of this ordinance by any person shall be unlawful and shall be referred to the city attorney who shall expeditiously prosecute all such violators. A violator shall, upon conviction, forfeit to the city a penalty of $50.00 (fifty dollars) or the maximum allowed under ss.87.30(2) for each separate offense, together with a taxable cost of such action. Each day of continued violation shall constitute a separate offense. Every violation of this ordinance is a public nuisance and the creation may be enjoined and the maintenance may be abated by action at suit of the city, the state, or any citizen thereof pursuant to s. 87.30 of Wisconsin Statutes.
v. DEFINITIONS
Unless specifically defined, words and phrases in this ordinance shall have their common law meaning and shall be applied in accordance with their common usage. Words used in the present tense include the future, the singular number includes the plural and the plural number includes the singular. The word "should" is advisory, the word "may" is permissive, the words "shall" or "must" are mandatory and are not discretionary.
(1) A Zones – Those areas shown on the Official Floodplain Zoning Map which would be inundated by the regional or base flood. These areas may be numbered or unnumbered
A Zones. The A Zones may or may not be reflective of flood profiles, depending on the availability of data for a given area.
(2) AH Zone – See "Area of Shallow Flooding".
(3) AO Zone – See "Area of Shallow Flooding".
(4) Accessory Structure Or Use – A facility, structure, building or use which is accessory or incidental to the principal use of a property, structure or building.
(5) Alteration – An enhancement, upgrading or substantial change or modifications other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a structure.
(6) Area Of Shallow Flooding – A designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1.0 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flood may be evident. Such flooding is characterized by ponding or sheet flow.


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(7) Base Flood –The flood having a one percent chance of being equaled or exceeded in any given year, as published by FEMA as part of a FIS and depicted on a FIRM. Also called the one hundred year recurrence interval flood.
(8) Basement – Any enclosed area of a building having its floor sub-grade, i.e., below ground level, on all sides.
(9) Building – See "Structure".
(10) Bulkhead Line – A geographic line along a reach of navigable water that has been adopted by a municipal ordinance and approved by the Department pursuant to s. 30.11 of Wisconsin Statutes, and which allows limited filling between this bulkhead line and the original ordinary high water mark (OHWM), except where such filling is prohibited by the floodway provisions of this ordinance.
(11) Campground – Any parcel of land which is designed, maintained, intended or used for the purpose of providing sites for nonpermanent overnight use by 4 or more camping units, or which is advertised or represented as a camping area. (12) Camping Unit – Any portable device, no more than 400 square feet in area, used as a temporary shelter, including but not limited to a camping trailer, motor home, bus, van, pick-up truck, or tent that is fully licensed, if required, and ready for highway use.
(13) Certificate of Compliance – A certification that the construction and the use of land or a building, the elevation of fill or the lowest floor of a structure is in compliance with all of the provisions of this ordinance.
(14) Channel – A natural or artificial watercourse with definite bed and banks to confine and conduct normal flow of water.
(15) Crawlways or Crawl Space – An enclosed area below the first usable floor of a building, generally less than five feet in height, used for access to plumbing and electrical utilities.
(16) Deck – An unenclosed exterior structure that has no roof or sides, but has a permeable floor which allows the infiltration of precipitation.
(17) Department – The Wisconsin Department of Natural Resources.
(18) Development – Any artificial change to improved or unimproved real estate, including, but not limited to, the construction of buildings, structures or accessory structures; the construction of additions or alterations to buildings, structures or accessory structures; the repair of any damaged structure or the improvement or renovation of any structure, regardless of percentage of damage or improvement; the placement of buildings or structures; subdivision layout and site preparation; mining, dredging, filling, grading, paving, excavation or drilling operations; the storage, deposition or extraction of materials or equipment; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities.
(19) Dryland Access – A vehicular access route which is above the regional or base flood elevation and which connects land located in the floodplain to land outside the floodplain, such as a road with its surface above regional or base flood elevation and wide enough for wheeled rescue and relief vehicles.
(20) Encroachment – Any fill, structure, equipment, use or development in the floodway.
(21) Federal Emergency Management Agency (FEMA) – The federal agency that administers the National Flood Insurance Program.
(22) Flood Insurance Rate Map (FIRM) – A map of a community on which the Federal Insurance Administration has delineated both the floodplain and the risk premium zones applicable to the community. This map can only be amended by the Federal Emergency Management Agency.
(23) Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas caused by one of the following conditions:
- The overflow or rise of inland waters;
- The rapid accumulation or runoff of surface waters from any source;
- The inundation caused by waves or currents of water exceeding anticipated cyclical levels along the shore of Lake Michigan; or
- The sudden increase caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a seiche, or by some similarly unusual event.


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(24) Flood Frequency – The probability of a flood occurrence which is determined from statistical analyses. The frequency of a particular flood event is usually expressed as occurring, on the average once in a specified number of years or as a percent (%) chance of occurring in any given year.
(25) Floodfringe – That portion of the one hundred year recurrence interval floodplain outside of the floodway which is covered by flood waters during the regional or base flood and are usually represented or associated with standing or slow moving circulating water rather than straight flowing water.
(26) Flood Hazard Boundary Map – A map designating approximate flood hazard areas. Flood hazard areas are designated as unnumbered A-Zones and do not contain floodway lines or regional or base flood elevations. This map forms the basis for both the regulatory and insurance aspects of the National Flood Insurance Program (NFIP) until superseded by a Flood Insurance Study and a Flood Insurance Rate Map (FIRM).
(27) Flood Insurance Study (FIS) – A technical engineering examination, evaluation, and determination of the local flood hazard areas. It provides maps designating those areas affected by the regional or base flood and provides both flood insurance rate zones and base flood elevations and may provide floodway lines. The flood hazard areas are designated as numbered and unnumbered A-Zones. Flood Insurance Rate Maps, that accompany the FIS, form the basis for both the regulatory and the insurance aspects of the NFIP.
(28) Floodplain – In the City of Pewaukee, lakes and streams and adjoining land which has been or may be covered by flood water during a regional or base flood, and which is comprised of the floodway, flood fringe, the FEMA 'A zones' plus the WisDNR Flood Storage Districts (FSDs).
(29) Floodplain Island – A natural geologic land formation within the floodplain that is surrounded, but not covered, by floodwater during the regional or base flood.
(30) Floodplain Management – Policy and procedures to insure wise use of floodplains, including mapping and engineering, mitigation, education, and administration and enforcement of floodplain regulations.
(31) Flood Profile – A graph or a longitudinal profile line showing the relationship of the water surface elevation of a flood event to locations of land surface elevations along a stream or river.
(32) Floodproofing – Any combination of structural provisions, changes or adjustments to properties and structures, water and sanitary facilities and contents of buildings subject to flooding, for the purpose of reducing or eliminating flood damage.
(33) Flood Protection Elevation – An elevation of two feet of freeboard above the water surface profile elevation designated for the regional or base flood. (Also see: "Freeboard".)
(34) Flood Storage – Those floodplain areas where storage of floodwaters has been taken into account during analysis in reducing the regional or base flood discharge.
(35) Floodway – The channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the main flow of the regional or base flood discharge and represented or associated with fast moving water.
(36) Freeboard – A safety factor expressed in terms of a specified number of feet above a calculated flood level. Freeboard compensates for any factors that cause flood heights greater than those calculated, including ice jams, debris accumulation, wave action, obstruction of bridge openings and floodways, the effects of watershed urbanization, loss of flood storage areas due to development and aggregation of the river or stream bed.
(37) Habitable Structure – Any structure or portion thereof used or designed for human habitation.
(38) Hearing Notice – Publication or posting meeting the requirements of Ch. 985, Stats. For appeals, a Class 1 notice, published once at least one week (7 days) before the hearing, is required. For all zoning ordinances and amendments, a Class 2 notice, published twice, once each week consecutively, the last at least a week (7 days) before the hearing. Local ordinances or bylaws may require additional notice, exceeding these minimums.
(39) High Flood Damage Potential – Damage that could result from flooding that includes any danger to life or health or any significant economic loss to a structure or building and its contents.
(40) Highest Adjacent Grade – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.


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(41) Historic Structure – Any structure that is either:
 Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program, as determined by the Secretary of the Interior; or by the Secretary of the Interior in states without approved programs.
(42) Increase In Regional or Base Flood Height – A calculated upward rise in the regional or base flood elevation greater than 0.00 foot, based on a comparison of existing conditions and proposed conditions which is directly attributable to development in the floodplain but not attributable to manipulation of mathematical variables such as roughness factors, expansion and contraction coefficients and discharge.
(43) Land Use – Any use consisting of unimproved or improved real estate. (Also see "Development".)
(44) Lowest Adjacent Grade – Elevation of the lowest ground surface that touches any of the exterior walls of a building.
(45) Lowest Floor – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.
(46) Maintenance – The act or process of restoring to original soundness, including redecorating, refinishing, nonstructural repairs, or the replacement of existing fixtures, systems or equipment with equivalent fixtures, systems or structures.
(47) Manufactured Home – A structure transportable in one or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities. The term "manufactured home" includes a mobile home but does not include a "mobile recreational vehicle."
(48) Mobile/Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land, divided into two or more manufactured home lots for rent or sale.
(49) Mobile/Manufactured Home Park or Subdivision, Existing – A parcel of land, divided into two or more manufactured home lots for rent or sale, on which the construction of facilities for servicing the lots is completed before the effective date of this ordinance. At a minimum, this would include the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.
(50) Mobile/Manufactured Home Park, Expansion to Existing – The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed. This includes installation of utilities, construction of streets and either final site grading, or the pouring if concrete pads.
(51) Mobile Recreational Vehicle (RV) – A vehicle which is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled, carried or permanently towable by a licensed, light-duty vehicle, is licensed for highway use if registration is required and is designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel or seasonal use. Manufactured homes that are towed or carried onto a parcel of land, but do not remain capable of being towed or carried, including park model homes, do not fall within the definition of "mobile recreational vehicles."
(52) Model, Corrected Effective – A hydraulic engineering model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model.


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(53) Model, Duplicate Effective – A copy of the hydraulic analysis used in the effective FIS and referred to as the effective model.
(54) Model, Effective – The hydraulic engineering model that was used to produce the current effective Flood Insurance Study.
(55) Model, Existing (Pre-Project) – A modification of the Duplicate Effective Model or Corrected Effective Model to reflect any man made modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model.
(56) Model, Revised (Post-Project) – A modification of the Existing or Pre-Project Conditions Model, Duplicate Effective Model or Corrected Effective Model to reflect revised or post-project conditions.
(57) Municipality or Municipal – The city governmental agencies enacting, administering and enforcing this zoning ordinance.
(58) NAVD or North American Vertical Datum – Elevations referenced to mean sea level datum, 1988 adjustment.
(59) NGVD or National Geodetic Vertical Datum – Elevations referenced to mean sea level datum, 1929 adjustment.
(60) New Construction – For floodplain management purposes, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain zoning regulations adopted by the City and includes any subsequent improvements to such structures. For the purpose of determining flood insurance rates, it includes any structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.
(61) Nonconforming Structure – An existing lawful structure or building which is not in conformity with the dimensional or structural requirements of this ordinance for the area of the floodplain which it occupies. (For example, an existing residential structure in the flood fringe is a conforming use. However, if the lowest floor is lower than the flood protection elevation, the structure is nonconforming.)
(62) Nonconforming Use – An existing lawful use or accessory use of a structure or building which is not in conformity with the provisions of this ordinance for the area of the floodplain which it occupies. (Such as a residence in the floodway.)
(63) Obstruction to Flow – Any development which blocks the conveyance of floodwaters such that this development alone or together with any future development will cause an increase in regional or base flood height.
(64) Official Floodplain Zoning Map – That map, adopted and made part of this ordinance, as described in s. 1.5(2), which has been approved by the Department and FEMA.
(65) Open Space Use – Those uses having a relatively low flood damage potential and not involving structures.
(66) Ordinary Highwater Mark – The point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.
(67) Person – An individual, or group of individuals, corporation, partnership, association, municipality or state agency.
(68) Private Sewage System – A sewage treatment and disposal system serving one structure with a septic tank and soil absorption field located on the same parcel as the structure. It also means an alternative sewage system approved by the Department of Safety and Professional Services, including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure.
(69) Public Utilities – Those utilities using underground or overhead transmission lines such as electric, telephone and communication cables, as well as liquid distribution and collection systems such as water mains, sanitary sewers and storm sewers.


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(70) Reasonably Safe From Flooding – Means base flood waters will not inundate the land or damage structures to be removed from the floodplain and that any subsurface waters related to the base flood will not damage existing or proposed buildings.
(71) Regional Flood – A flood determined to be representative of large floods known to have occurred in Wisconsin. A regional flood is a flood with a one percent chance of being equaled or exceeded in any given year, and if depicted on the FIRM, the RFE is equivalent to the BFE. (See BASE FLOOD)
(72) Special Flood Hazard Areas (SFHA) – Represent all the land and water areas that are prone to flooding, including: lakes and streams, the designated floodway, the designated flood fringe, the FEMA 'A' zone, and the WisDNR Flood Storage Districts (FSDs).
(73) Start of Construction – The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond initial excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For an alteration, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
(74) Structure – Any manmade object with form, shape and utility, either permanently or temporarily attached to, placed upon or set into the ground, stream bed or lake bed, including, but not limited to, roofed and walled buildings, gas or liquid storage tanks, bridges, dams and culverts.
(75) Subdivision – Has the meaning given in s. 236.02(12) of Wisconsin Statutes.
(76) Substantial Damage – Damage of any origin sustained by a structure, whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the equalized assessed value of the structure before the damage occurred.
(77) Substantial Improvement – Any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the equalized assessed value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the work performed. The term does not, however, include either any project for the improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions; or any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.
(78) Unnecessary Hardship – Where special conditions affecting a particular property, which were not self-created, have made strict conformity with restrictions governing areas, setbacks, frontage, height or density unnecessarily burdensome or unreasonable in light of the purposes of the ordinance.
(79) Variance – An authorization by the board of adjustment or appeals for the construction or maintenance of a building or structure in a manner which is inconsistent with dimensional standards (not uses) contained in the floodplain zoning ordinance. (80) Violation – The failure of a structure or other development to be fully compliant with the floodplain zoning ordinance. A structure or other development without required permits, lowest floor elevation documentation, floodproofing certificates or required floodway encroachment calculations is presumed to be in violation until such time as that documentation is provided.
(81) Watershed – The entire region contributing runoff or surface water to a watercourse or body of water.
(82) Water Surface Profile – A graphical representation showing the elevation of the water surface of a watercourse for each position along a reach of river or stream at a certain flood flow. A water surface profile of the regional or base flood is used in regulating floodplain areas.
(83) Well – means an excavation opening in the ground made by digging, boring, drilling, driving or other methods, to obtain groundwater regardless of its intended use.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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CERTIFIED SURVEY MAP NO. 544, RECORDED MARCH 7, 1967 IN VOLUME 3 OF CERTIFIED SURVEY MAPS ON PAGES 276 TO 277 AS DOCUMENT NO. 679571, PART OF THE SOUTH 1/2 OF SECTION 1 AND THE NORTH 1/2 OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

TAX KEY NO. PWC 0868995

ADDRESS: W225 N4014 DUPLAINVILLE ROAD.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 4**
**Owner: Deborah J. Dollak**
**Interest: PLE**

Parcel 4 of Transportation Project Plat 21-01-4.02 recorded as Document No. 4651917 on February 15, 2022, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel 4 consist of:

**Permanent Limited Easement**

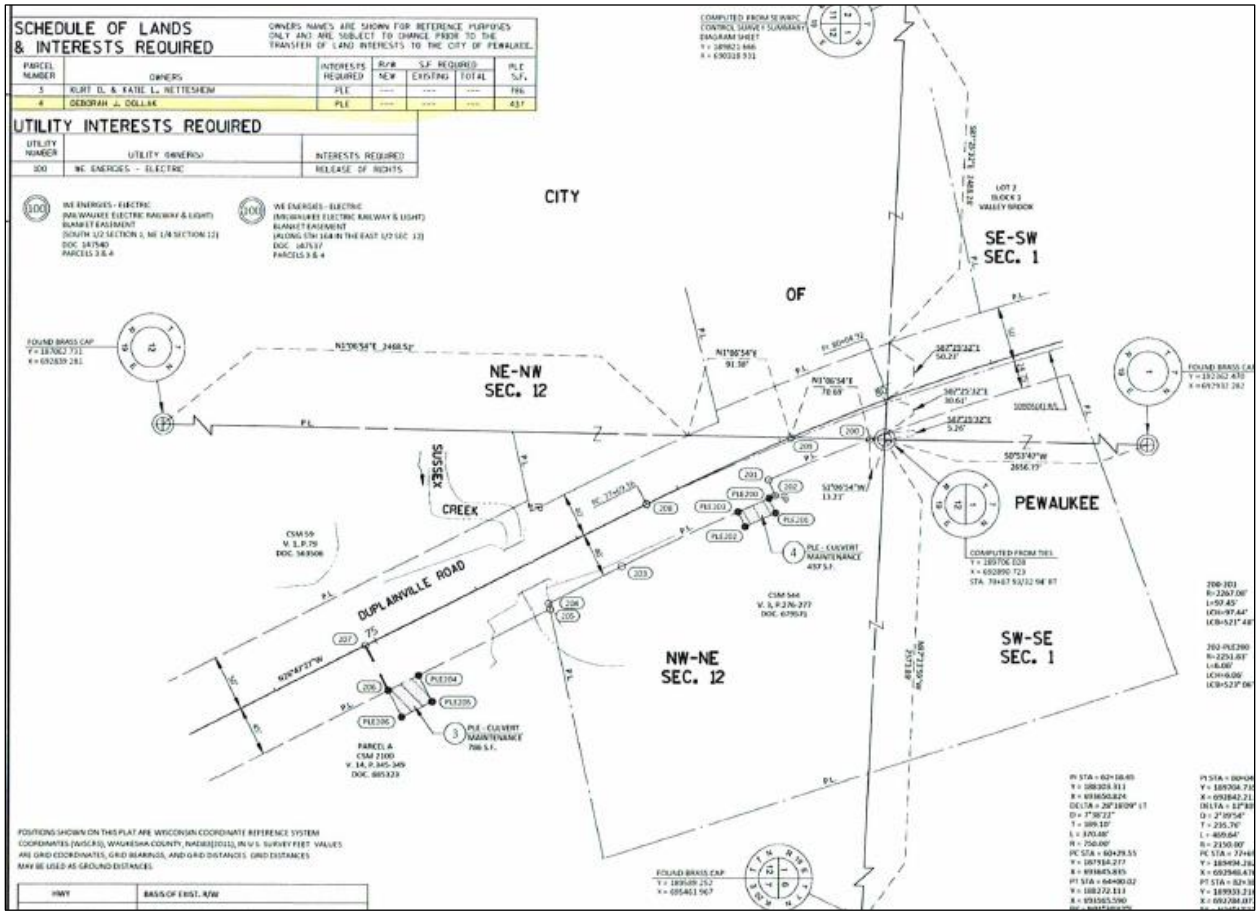

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**ADDENDUM F**

**ACQUISITION PLAT**


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## ACQUISITION PLAT



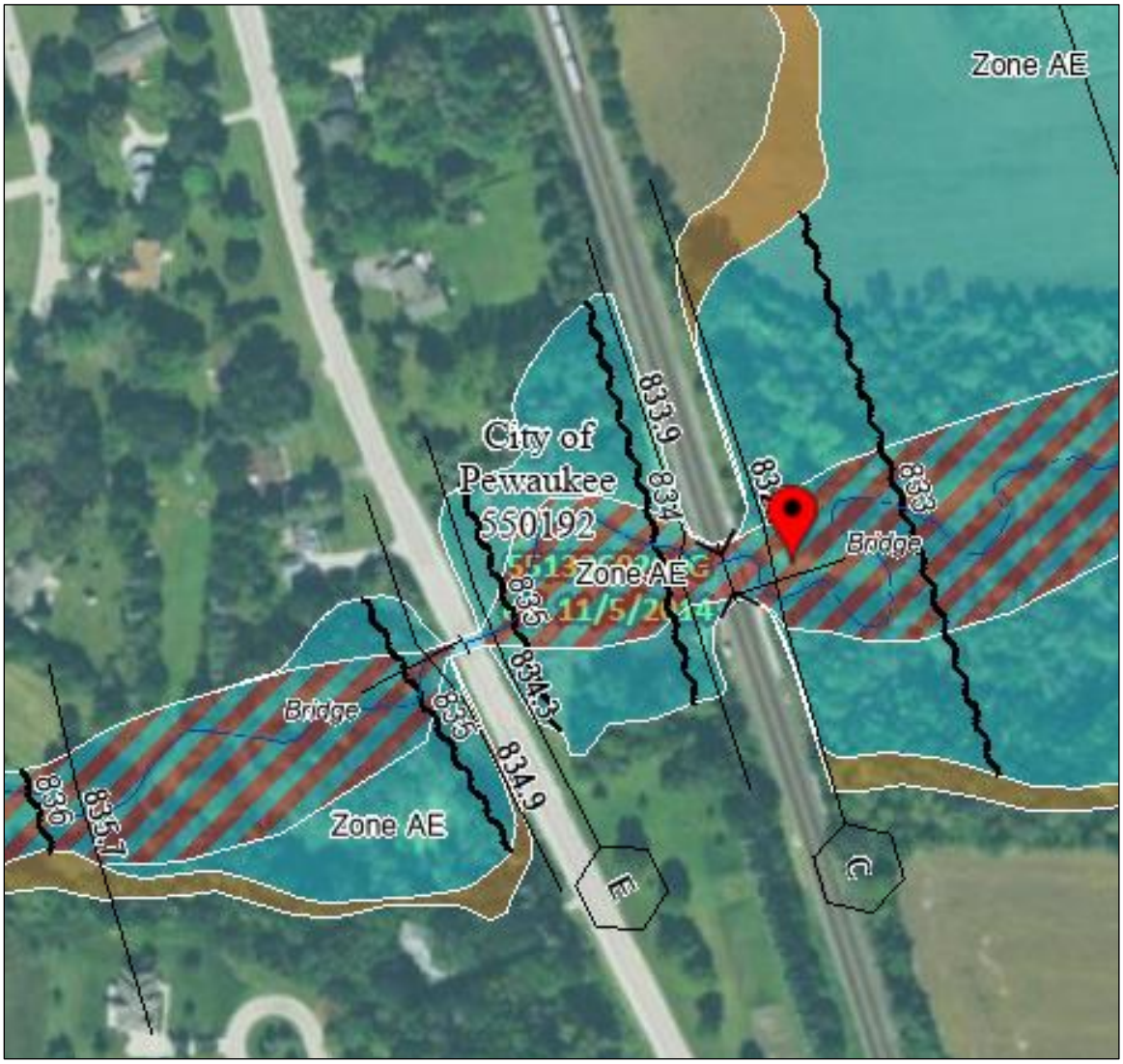


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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# ADDENDUM H
# QUALIFICATIONS


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, University of Wisconsin-Madison, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 2370-04-70**
Located at W225N4014 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 1

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

February 23, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 2370-04-70
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 1

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road. According Public Records, the site contains approximately 3.1095-acres or 135,450-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W225N4014 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**TWO HUNDRED DOLLARS**

**($200)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $401,900 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $200 |
| **Total Damages (Rounded):** | $200 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$200** |
| **Total:** | **$200** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

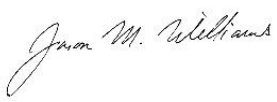
It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

We certify that, to the best of our knowledge and belief:

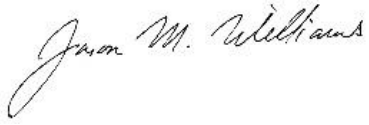
1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. On Wednesday, January 26, 2022 Jason Williams of Single Source, Inc. called the owner to schedule an inspection of the subject property. The telephone call was not answered and a voicemail was left inviting the owner to accompany the appraisers on the inspection. Mr. Williams did not receive a return call. Mr. Williams sent a letter dated January 26, 2022 inviting the owner to contact him about accompanying someone from Single Source, Inc. on an appraisal inspection. Mr. Williams did not hear back. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $200.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Deborah J. Dollak |
| Property Address: | W225N4014 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin 53072 |
| Owner Address: | W225N4014 Duplainville Rd., City of Pewaukee, Waukesha, Wisconsin 53072 |
| Phone: | 262-695-1304 |
| Total Land Area: | 3.1095-acres or 135,450-square feet |
| Building Improvements: | The subject is improved with a single-family residence |
| Assessor's Parcel Number: | PWC 0868995 |
| Current Zoning: | Rs-2, Single-Family Residential District and F-1, Floodplain Districts |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Residential Development |
| As Improved: | Single-Family Residence |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Temporary Limited Easement: | 877 square feet or 0.02013 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $401,900 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $200 |
| **Total Damages (Rounded):** | $200 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$200** |
| **Total:** | **$200** |


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D Zoning Map & Code
E Legal Descriptions
F Acquisition Plat
G Flood Plain Map
H Appraiser Qualifications


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road. According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owner of the subject property is Deborah J. Dollak. According to public records the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | February 23, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

There are two extraordinary assumptions in the analysis. Generally, a contractor is unlikely to know the exact timing when the subject property will be utilized for its specific purpose under the Temporary Limited Easement. Because of this uncertainty of timing, the determination of the time period during which the Temporary Limited Easement will actually require physical possession of the property is estimated by the


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engineer who gives this information to the appraiser. The appraiser employs this as an extraordinary assumption within the appraisal report. The use of this extraordinary assumption may have altered the appraisal results.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.

**HYPOTHETICAL CONDITION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

**MARKET VALUE**

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:


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1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Temporary Limited Easement totaling 877-square feet or 0.02013-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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## SPECIAL APPRAISAL INSTRUCTIONS

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). The duration of the Temporary Limited Easement is the time period between the date of appraisal (February 13, 2022) and the scheduled construction completion date (December 1, 2022) or approximately 10 months. However, the project clean-up may run until November 2023. Therefore, duration of the Temporary Limited Easement is February 13, 2022 to November 1, 2023 or approximately 21 months.

## OWNERS CONCERNS

None noted.

## COMPETENCY OF THE APPRAISER

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 30 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

## EXPOSURE TIME

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a residential use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |


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In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

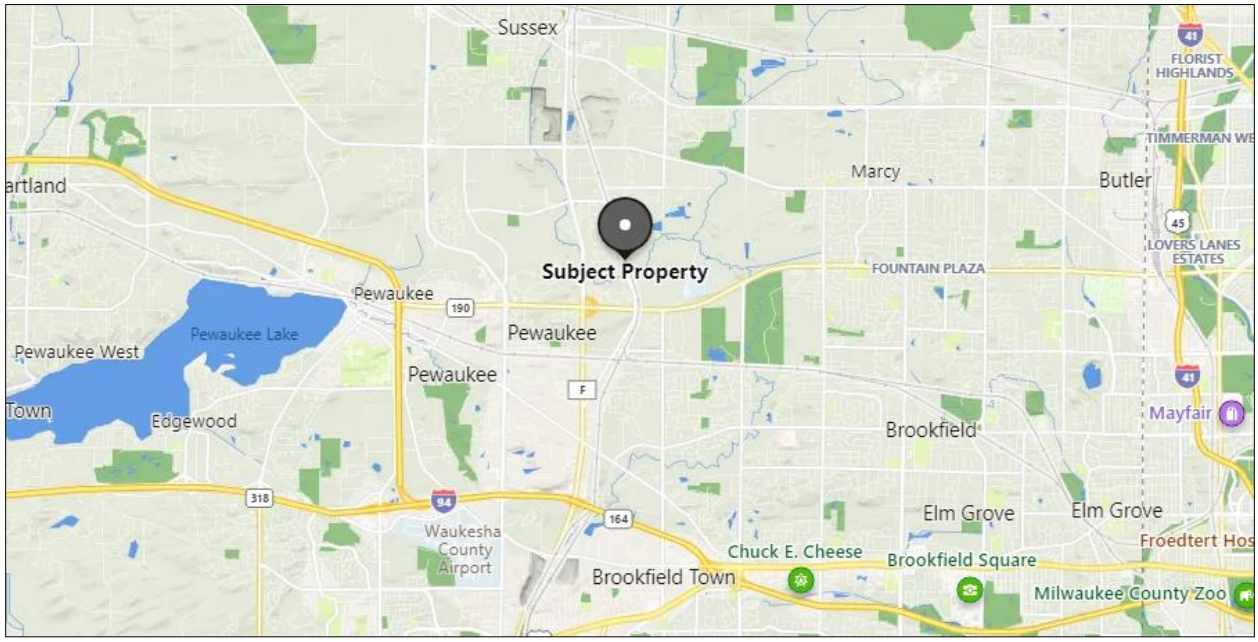

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.

Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area


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of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4014 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet.

### Shape and Frontage

The subject is rectangular in shape with approximately 546 linear feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has a rectangular shape and is generally level and at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available and connected to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

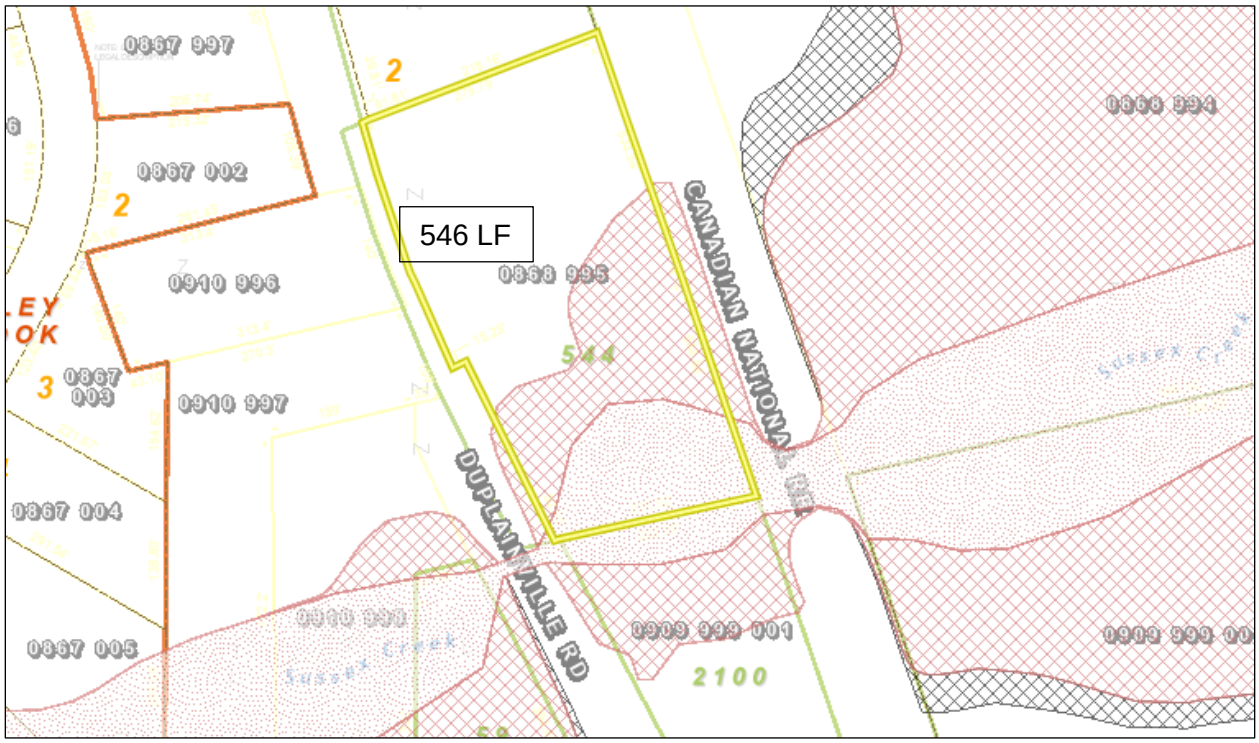
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within Zone X and Zone AE as indicated on FEMA Community Map Panel 55133CO202G dated November 5, 2014. According to the maps the single-family residence is located in Zone X while the project area is located in Zone AE.

FEMA Zone X: Areas determined to be outside the 500 year flood plain.

FEMA Zone AE: Areas subject to inundation by the 1-percent-annual-chance flood event.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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### Site Improvements

The site is improved with a single-family residence. The improvements will not be impacted by the road project.

**Aerial Map**




### Larger Parcel

According to Public Records, the site contains approximately 3.1095-acres or 135,450-square feet. The subject is improved with a single-family residence. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

### Conclusion

The property is comprised of a single larger parcel containing 3.1095-acres or 135,450-square feet. The site topography is generally level and at road grade. The subject is rectangular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available and connected to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | Rs-2, Single-Family Residential District |
| Permitted Uses: | One single-family residence, foster homes, CBRFs, family day care, professional home office, hobby kennels |
| **Category** | **Zoning Requirement** |
| Front Setback: | 45-feet from right-of-way |
| Rear Setback: | 35-feet |
| Side Setback: | 25-feet |
| Floodplain Setback: | 75-feet |
| Wetland Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 220' at building |
| Driveway Limit: | 24-feet at right-of-way line and 28-feet at the roadway |
| Source: City of Pewaukee Zoning Code<br>Compiled By: Single Source, Inc. | |

In addition to the Rs-2 Single-Family Residential District, the subject property is zoned F-1, Flood Plain District. According to the City of Pewaukee Municipal Code Chapter 17, The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas.

Permitted uses in the F-1, Floodplain District include functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes and public utilities, streets/highways and bridges that comply with various subsections of the F-1 zoning classification.

The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a base flood floodplain

The property is considered to be a legal and conforming use in the "before" and "after" condition. The subject property consists of 3.1095 acres "before" and will contain 3.1095 acres in the "after" condition. The minimum lot size per the Rs-2 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0868995 | $147,500 | $168,300 | $315,800 | $3,631.95 |
| Equalized Market Value @ 100% | $150,400 | $171,600 | $322,000 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $3,631.95 includes a First Dollar Credit of $66.80, Lottery Credit of $236.91. Review of public records indicate no special assessment for the subject property.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned Rs-2 Single-Family Residential District and F-1, Floodplain District. The Rs-2 Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre. The subject property appears to comply with the current Rs-2 zoning standards.

The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. The subject property appears to comply with the current F-1 zoning standards.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally rectangular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. Based on the subject's specific location and physical characteristics, it is our opinion that a residential use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics,


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it is our opinion that development of the site with a residential use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

**Conclusion: Highest and Best Use As Though Vacant**

The concluded highest and best use of the subject as though vacant is residential development.

## HIGHEST AND BEST USE AS IMPROVED

**Legal Permissibility**

The subject is a legal and conforming use as improved per the Rs-2 Single-Family Residential District and F-1, Floodplain District zoning code.

**Physical Possibility**

The layout and positioning of the improvements are functional for a single-family residence, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current single-family residence.

**Financial Feasibility**

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active residential market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

**Maximum Profitability**

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

**Conclusion: Highest and Best Use as Improved**

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as a single-family residence. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

**Conclusion: Highest and Best Use – Before Acquisition**

The concluded highest and best use of the subject before the acquisition is continued use as a single-family residence.


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**Conclusion: Highest and Best Use – After Acquisition**

The concluded highest and best use of the subject after the acquisition is continued use as a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 135,450-square feet or 3.1095-acres in the "before" condition. The subject is improved with a single-family residence, in the "before" and "after" condition. Following the acquisition the subject site will remain at 135,450-square feet or 3.1095-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E are as shown below.

| | | |
|---|---|---|
| Subject Before Acquisition: | 135,450 SF | 3.1095-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Temporary Limited Easement: | 877 | 0.02013-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 135,450 SF | 3.1095-acres |

**Acquired Parcel**

None.

**Temporary Limited Easement**

One Temporary Limited Easement of 0.02013-acres or approximately 877-square feet will encumber the subject. The Temporary Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road and north of the Spring Creek Bridge. According to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E the existing Spring Creek Bridge structure is to be removed. This Temporary Limited Easement area is for the right to construct a bridge and for slope grading.

**Site Improvements**

There are no site improvements in the Temporary Limited Easement. There is deciduous brush, shrubs and trees that do not contribute to value.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

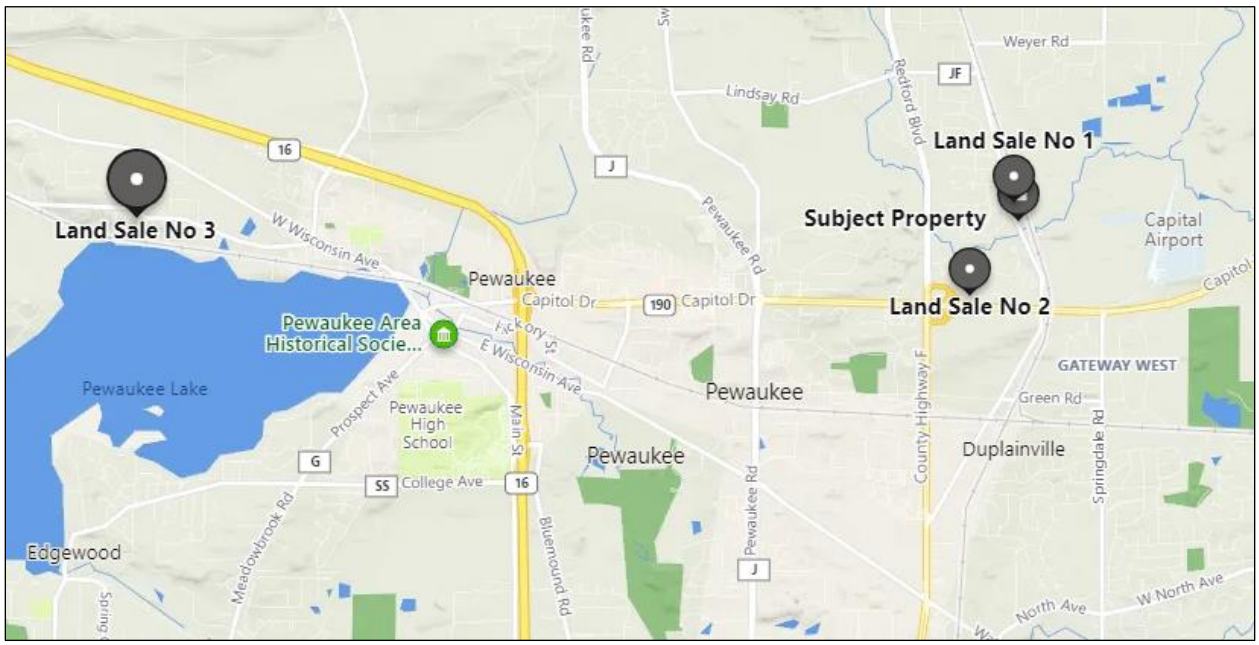
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




## ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $1.46 to $5.44 per square foot of land area. The primary differences between the comparable sales and the subject include utilities, physical characteristics and size of the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash


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equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.

**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4014 Duplainville Rd. Pewaukee, WI | -- | 135,450 | 3.1095 | Rs-2, F-1 | -- | -- | |
| 1 | Lot 1 Duplainville Road Pewaukee, WI | Feb-22 | 35,954 | 0.8254 | Rs-3 | $52,500 | $1.46 | $63,606 |
| 2 | Lot 14 Wyndemere Court Pewaukee, WI | Oct-21 | 23,893 | 0.5485 | Rs-5 | $130,000 | $5.44 | $237,010 |
| 3 | Lot 2 Glacier Road Pewaukee, WI | Sep-21 | 91,929 | 2.1104 | Rs-3, UC | $300,000 | $3.26 | $142,153 |

**Compiled by: Single Source, Inc.**

**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation. All sales are less than one year from the date of value and do not require adjustment.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available. Sale Nos. 1 and 3 have sewer service available but not water and require an upward adjustment. Sale No. 2 has both sewer and water available therefore no adjustment is required.

**Size**

The subject site has a size of approximately 3.1095-acres or 135,450-square feet of land area. The comparable sales range from 23,893-square feet to 91,929-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale Nos. 1, 2, and 3 are deemed smaller in size compared to the subject site and require varying degrees of downward adjustment.

**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of


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W225N4014 Duplainville Road. Sale Nos. 1 and 3 are deemed similar in location to the subject site and require no adjustment. Sale No. 2 is located in a pre-planned subdivision and is deemed to have superior location compared to the subject site and requires a downward adjustment.

**Access/Visibility**

The subject property has average access from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale Nos. 1 and 2 are deemed similar in access to the subject site and require no adjustment. Sale No. 3 has below average access because of narrow road width, minimal roadway shoulder and the access point to the site is located at the apex of a curve in the roadway. Therefore, in our opinion an upward adjustment is required.

**Physical Features**

The subject is rectangular in shape with generally level topography and at road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system. The southern portion of the subject site is located in a floodplain. Sale No. 1 abuts the Canadian Pacific rail system, has similar physical features to the subject site, but is not located in a floodplain and requires a downward adjustment. Sale No. 2 does not abut a rail system and is not located in a floodplain and requires a downward adjustment. Sale No. 3 does not abut a rail system, but has a view of Pewaukee Lake. In our opinion a net negative adjustment is required.

**Zoning and Use**

The subject property is zoned Rs-2, Single-Family Residential District which allows residential uses and F-1, Floodplain District which allows culverts and public utilities. Sale Nos. 1 and 2 do not have additional zoning but Sale No. 3 has Upland Conservancy. All sales have similar residential zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 |
|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $52,500 | | $130,000 | | $300,000 |
| Date of Sale | | -- | Feb-22 | | Oct-21 | | Sep-21 |
| Net Site Size (SF) | | 135,450 | 35,954 | | 23,893 | | 91,929 |
| Price/SF | | -- | $ 1.46 | | $ 5.44 | | $ 3.26 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Time/Market Conditions | | | 0.00% | | 0.00% | | 0.00% |
| | | | $ - | | $ - | | $ - |
| Current CE Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| DIRECT ADJUSTMENTS | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 10.0% | | 0.0% | | 10.0% |
| | | | $ 0.15 | | $ - | | $ 0.33 |
| Total Direct Adjustments | | | $ 0.15 | | $ - | | $ 0.33 |
| Adjusted CE Sale Price/SF | | | $ 1.61 | | $ 5.44 | | $ 3.59 |
| PERCENTAGE ADJUSTMENTS | | | | | | | |
| Size (SF) | 135,450 | | 35,954 | | 23,893 | | 91,929 |
| | | | Smaller | | Smaller | | Smaller |
| | | | -20% | | -20% | | -10% |
| | | | $ (0.32) | | $ (1.09) | | $ (0.36) |
| Market Area/Location | Pewaukee | | Similar | | Superior | | Similar |
| | | | 0% | | -20% | | 0% |
| | | | $ - | | $ (1.09) | | $ - |
| Access/Visibility | Average/Average | | Similar | | Similar | | Inferior |
| | | | 0% | | 0% | | 5% |
| | | | - | | - | | 0.18 |
| Other Physical Features | Rectangular | | Superior | | Superior | | Superior |
| | | | -10% | | -15% | | -5% |
| | | | (0.16) | | (0.82) | | (0.18) |
| Zoning | Rs-2, F-1 | | Rs-3 | | Rs-5 | | Rs-3, UC |
| | | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ (0.48) | | $ (2.99) | | $ (0.36) |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **1.12** | | **2.45** | | **3.23** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 2.27** | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$1.70** | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **135,450** | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 230,265** | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 230,300** | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $1.12 to $2.45 per square foot, with an average of $2.27 per square foot. Primary weight was placed on Sale No. 1 as it is located on Duplainville Road, in close proximity to the subject site and is a very recent sale. Support was provided from Sale Nos. 2 and 3. Based on this analysis, the subject property is estimated to have a unit value at $1.70 per square foot, between all three sales.

**Concluded Land Value Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 135,450 | X | $1.70 | = | $230,265 |
| **Value Indication (Rounded):** | | | | **$230,300** |

**Before Value**

The total "before" value is $401,900 ($230,300 - land + $171,600 - improvements, per assessment, rounded).

**Valuation of Temporary Limited Easement**

One Temporary Limited Easement of 0.02013-acres or approximately 877-square feet will encumber the subject site. The Temporary Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road and north of the Spring Creek Bridge. According to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E the existing Spring Creek Bridge structure is to be removed. This Temporary Limited Easement area is for the right to construct a bridge and for slope grading.

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). The duration of the Temporary Limited Easement is the time period between the date of appraisal (February 13, 2022) and the scheduled construction completion date (December 1, 2022) or approximately 10 months. However, the project clean-up may run until November 2023. Therefore, duration of the Temporary Limited Easement is February 13, 2022 to November 1, 2023 or approximately 21 months.

The simplest way to compensate the landowner is through similar land rentals in the market. No residential land rentals were available for analysis. The commercial land rents shown below were obtained through primary market research.


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| No. | Location | Annual Rent/SF | Basis | Commencement Date | Term | Annual Escalation |
|---|---|---|---|---|---|---|
| 1 | Wausau, Wisconsin<br>Confidential | $2.61 | ABS Net | 2016 | 12.5 years | -- |
| 2 | Oconomowoc, Wisconsin<br>Confidential | $1.53 | ABS Net | Aug-18 | 25 years | 1.5% |
| 3 | Sun Prairie, Wisconsin<br>Confidential | $1.10 | ABS Net | 2018 | 15 years | flat |
| 4 | Pewaukee, Wisconsin<br>Confidential | $1.58 | ABS Net | Jun-18 | 15 years | 5% every 5 years |
| 5 | West Allis, Wisconsin<br>Confidential | $2.96 | ABS Net | Nov-16 | 15 years | 9% every 5 years |
| 6 | Oconomowoc, Wisconsin<br>Confidential | $1.53 | ABS Net | Aug-18 | 25 years | 1.5% |
| 7 | Sun Prairie, Wisconsin<br>Confidential | $1.21 | ABS Net | Feb-15 | 20 years | 7.5% every 5 years |
| 8 | Milwaukee, Wisconsin<br>Confidential | $1.58 | ABS Net | Mar-18 | 5 years | Flat |
| 9 | Delafield, Wisconsin<br>Confidential | $1.80 | ABS Net | 2020 | 20 years | 10% in year 10 & 15 |
| 10 | Pewaukee, Wisconsin<br>Confidential | $1.04 | ABS Net | Mar-19 | 15 years | 5% every 5 years |
| 11 | Sheboygan, Wisconsin<br>Confidential | $1.62 | ABS Net | 2020 | 15 years | 10% every 5 years |
| 12 | Brookfield, Wisconsin<br>Confidential | $3.93 | ABS Net | 2017 | 15 years | 5% every 5 years |
| 13 | Menomonee Falls, Wisconsin<br>Confidential | $0.86 | ABS Net | Sep-19 | 20 years | 5.0% Every 5 years |
| | **Average** | **$1.80** | | | | |
| | **Minimum** | **$0.86** | | | | |
| | **Maximum** | **$3.93** | | | | |

**Compiled By: Single Source, Inc.**

The commercial land rental rates range from $0.86 to $3.93 per square foot with an average of $1.80 per square foot.


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In addition to the land rental rates, we have researched equity divided rates to determine an appropriate yield for the subject land.

The following table indicates current safe rates within the market.

| Current Safe Rates 4th Quarter 2021 | Term | Rate |
|---|---|---|
| US Treasury Rate | 6 months | 0.03% |
| US Treasury Rate | 1 year | 0.06% |
| US Treasury Rate | 2 years | 0.16% |
| US Treasury Rate | 3 years | 0.33% |
| Municipal Bonds | 1 year | 0.10% |
| Municipal Bonds | 2 years | 0.12% |
| Corporate Bonds AA/ | 1 year | 2.02% |
| | **Average** | **0.40%** |
| | **Minimum** | **0.03%** |
| | **Maximum** | **2.02%** |
| **Compiled By: Single Source, Inc.** | | |

The rates above would need to be built up to reflect real estate risk and liquidity issues.

**Liquidity**

This adjustment addresses the difference in liquidity between the chosen safe rate investment alternative and the TLE. This adjustment is necessary because most alternative investments can be sold or traded. This would give the investor the opportunity to take advantage of beneficial fluctuations in the market that could potentially allow them to increase their annual rate of return. The TLE will be acquired until the completion of the construction project. The TLE is paid in full for the specified time period and cannot be sold or traded. This non-liquidity is an element that should be considered when estimating a rate of return. The longer the timeframe for the TLE, the greater the need for this adjustment. Typical adjustments for non-liquidity range from 1% to 3%. Taking into consideration the relatively long term of the proposed TLE, an adjustment toward the middle of the range at 2.0% is considered appropriate

**Risk**

This adjustment is tied to the uncertainty associated with the ultimate physical and financial impacts of the TLE on the encumbered areas. The risk is also tied to the impacts of the subsequent construction activities within the TLE, the risk level may be affected by the location and size of the TLE. Smaller TLEs, or TLEs that are situated in remote or unused areas of a property would have less risk. Larger TLEs, or TLEs located in prominent or heavily used areas of a property would have more risk. The adjustment for risk is directly tied to the physical characteristics of the TLE being analyzed, its impact on the affected parcel and is tied to the


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property type or current use of the parcel. The adjustment for risk has the potential to be unique for each parcel. Typical adjustments for risk range from 2% to 4%. Taking into consideration the size and location of the proposed TLE, a 3% adjustment for risk is considered appropriate. Based on these conclusions, the annual rate of return is calculated as follows:

| | |
|---|---|
| Safe Investment Rate | 0.40% |
| Liquidity | + 2.00% |
| Risk | + 3.00% |
| Rate of Return | = 5.40% |

The results of relevant published investor survey data are summarized in the following table.

**SUMMARY OF INVESTOR SURVEYS**
**DISCOUNT RATE**

| Investor Survey | Discount Rate Range | Average | Date of Survey |
|---|---|---|---|
| PWC Real Estate Investor Survey | | | |
| National Development Land Market | 10.00%-25.00% | 16.70% | 2nd Qtr. 2021 |
| Compiled by: Single Source, Inc. | | | |

The subject property is in an average location and is considered to be within a stable market. The survey indicates an overall range of 10.00% to 25.00%. Because of the subject's size, location, and type, it is likely that the appropriate capitalization rate would be below the bottom of the range indicated in the preceding table. The quoted rates are for undeveloped land with many risk factors; therefore, we believe a rate under 10.00 percent would be appropriate for the subject property.

A ground lease was purchased by a local investor. We obtained the pertinent factors of the deal (interest rate, amortization schedule, equity requirement, and capitalization rate) and solved for the Equity Dividend Rate. The yielding rate was 7.21 percent for a remaining three-year term. We believe the subject property would require a rate slightly below this market rate.

We believe an appropriate return rate for the subject property would be 7.0 percent per year, near the built up safe rate and referenced rate. This rate is applied for the time period both prior to construction and under construction, approximately 21 months.

Utilizing the unit value of $1.70 per square foot would indicate a land value of $1,500 ($1.70/SF x 877 SF = $1,491, rounded to $1,500) which is the basis of our Temporary Limited Easement calculation.

**Discount Factor**

The TLE payment will be paid to the property owner as a lump sum rather than annual installments. Therefore, an annual return on investment must be identified to determine a discount factor used to calculate the present value (lump sum payment) of future annual rental payments for the use of the land contained within the TLE. The calculated rate is 7 percent and yields the following value.


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**Acquired Land Value Conclusion – Temporary Limited Easement**

**Acquired Land Value**
**Temporary Limited Easement**

| Year | Months | Land Value | Discount Rate | PV Factor | Value |
|---|---|---|---|---|---|
| 1 | 12 | $1,500 | 7.00% | 1.0000 | $98.12 |
| 2 | 9 | $1,500 | 7.00% | 0.9345 | $73.59 |
| TOTAL | | | | | $171.71 |
| **Value Indication (Rounded):** | | | | | **$200.00** |

**Valuation of Site Improvements**

There are no site improvements in the Temporary Limited Easement. There is deciduous brush, shrubs and trees located within the Temporary Limited Easement that do not contribute to value.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $401,900 ($230,300 - land + $171,600 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $401,900 |
| Market Value Following Acquisition: | $401,900 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $200 |
| **Total Damages (Rounded):** | $200 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$200** |
| **Total:** | **$200** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT PROPERTY LOOKING EAST**



**TLE LOOKING SOUTH**


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TLE AND BRIDGE LOOKING SOUTH



TLE AND BRIDGE LOOKING NORTH


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | Lot 1 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.8254-acres or 35,955-square feet |
| Zoning: | Rs-3 Single-Family Residential District |
| Topography: | Generally level |
| Utilities: | Sewer available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0868996001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 11, 2022 |
| Sale Price: | $52,500 |
| Sale Price/SF: | $1.46 |
| Sale Price/Acre: | $63,606 |
| Grantor: | H&F Properties, LLC |
| Grantee: | Tyler Morgan |
| Document No.: | 4651813 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor Anthony Kersten of Cherry Home Realty – listing agent, Sarah Keily of Shorewest – selling agent |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 1 of Certified Survey Map No. 2514, recorded in Waukesha County Register of Deeds on February 25, 1976,in Volume 18 of Certified Survey Maps, on Pages 173, 174and 175, as Document No. 941058, part of the Southwest 1/4of the Southeast 1/4, and the Southeast 1/4 of the Southwest1/4 of Section 1, Township 7 North, Range 19 East, in the City of Pewaukee, County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the east side of Duplainville Road near the subject site and just north of Capitol Drive and south of Weyer Road. The property has average access and visibility with generally level topography. The property is zoned Rs-3 and allows for single-family residential uses. Sewer service is available not water. The property was listed for sale twice in the past two years. The first listing was March 20, 2020 for $65,000, which expired after 184 days. The second listing began February 18, 2021 for an asking price of $65,000. Days on Market (DOM) reached 329 days before the sale at $52,500. Based on a discussions with the listing and selling agents the buyers intend to build a single-family house. The listing agent indicated that the sale price was below the list price because the buyer will need to extend water service from the west side of Duplainville Road to the east side where the property is located. The sale is located

**Parcel Map**





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## LAND SALE NO. 2



**Property Identification**

| | |
|---|---|
| Location: | Lot 14 Wyndemere Court<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.5485-acres or 23,893-square feet |
| Zoning: | Rs-5 Single-Family Residential District |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0910071 |

**Sale Data**

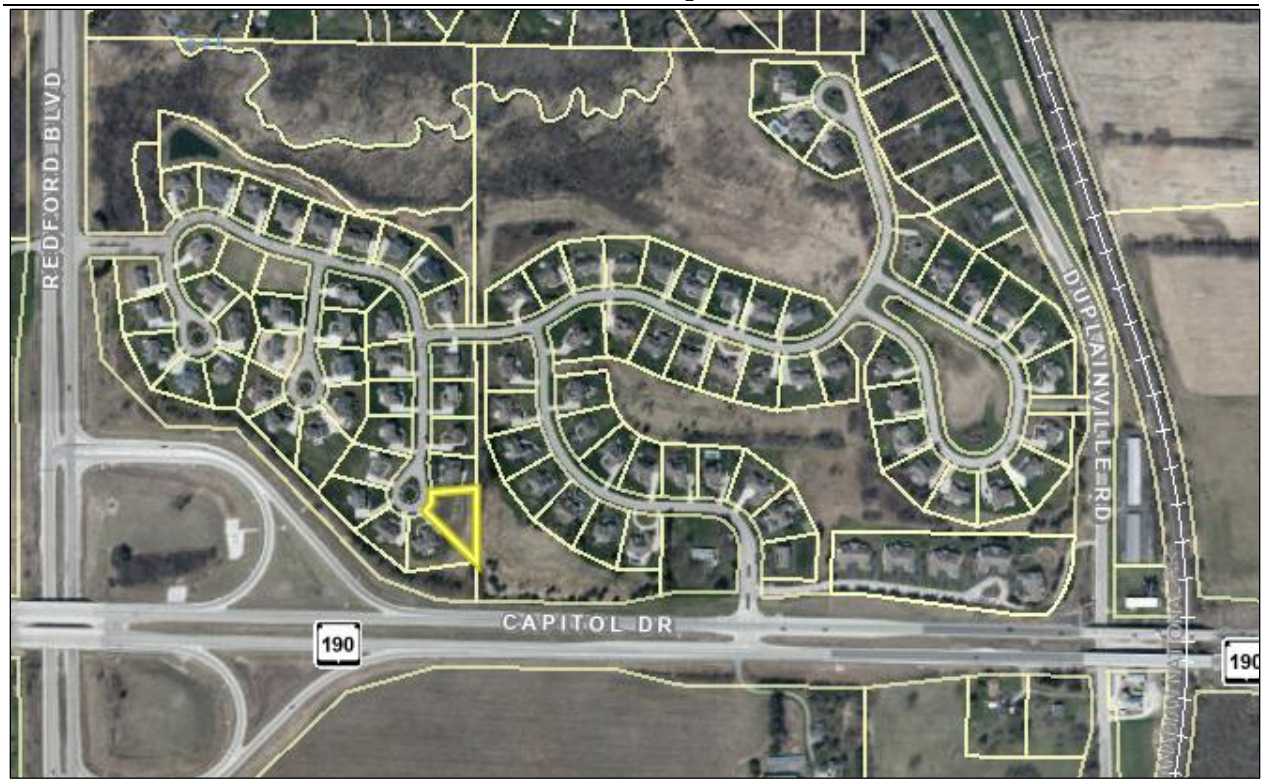
| | |
|---|---|
| Date of Sale: | October 29, 2021 |
| Sale Price: | $130,000 |
| Sale Price/SF: | $5.44 |
| Sale Price/Acre: | $237,010 |
| Grantor: | D&B Mierow, LLC |
| Grantee: | Denali Realty Group, LLC |
| Document No.: | 4631192 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot Fourteen (14), together with an undivided interest inOutlots 1, 2, 3, 4 and 5, all in Wyndemere, being aSubdivision of a part of the Northwest One-quarter (1/4) andSouthwest One-quarter (1/4) of the Northwest One-quarter(1/4) of Section Twelve (12), Township Seven (7) North,Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, and an affidavit of Correction recorded on June 8, 2005, as Document No. 3283892. |

**Comments:**


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The parcel is located along the east side of Wyndemere Court, just west of Duplainville Road, east of Redford Boulevard, and north of Capitol Drive. The property has average access and visibility with generally level topography. The property is zoned Rs-5 and allows for single-family residential uses. Water and sewer service are available.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | Lot 2 Glacier Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 2.1104-acres or 91,929-square feet |
| Zoning: | Rs-3 Single-Family Residential District/UC, Upland Conservancy |
| Topography: | Generally Level, downwards sloping to south, wooded |
| Utilities: | Sewer Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0890999006 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | September 30, 2021 |
| Sale Price: | $300,000 |
| Sale Price/SF: | $3.26 |
| Sale Price/Acre: | $142,153 |
| Grantor: | Gary R. Klatt |
| Grantee: | Andrew and Candace Johnson |
| Document No.: | 4624166 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot 2 and Outlot 2 of Certified Survey Map No. 11922, being a redivision of all of Lots 1, 2 and 3 of Certified Survey Map No.8822 being a division of Lot 2 of Certified Survey Map No.4581 being part of the Southeast 1/4 of the Southwest 1/4Section 6 and the Northeast 1/4 of the Northwest 1/4 of Section 7, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on October 15, 2019 in Book 120, Pages 301-305, as Document No. 4428613. |

**Comments:**


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The parcel is located along the south side of Glacier Road, just east of North Shore Drive and south of Hwy 16. The property has below-average access and visibility with generally level topography with downward sloping to the south. The property is bifurcated with a non-contiguous area located on Pewaukee Lake. Parcel 999011 and a rail system separate these two areas of the parcel. The property is zoned Rs-3 and Upland Conservancy and allows for single-family residential uses. Sewer service is available not water. The property was marketed as having a view of Pewaukee Lake.

**Parcel Map**



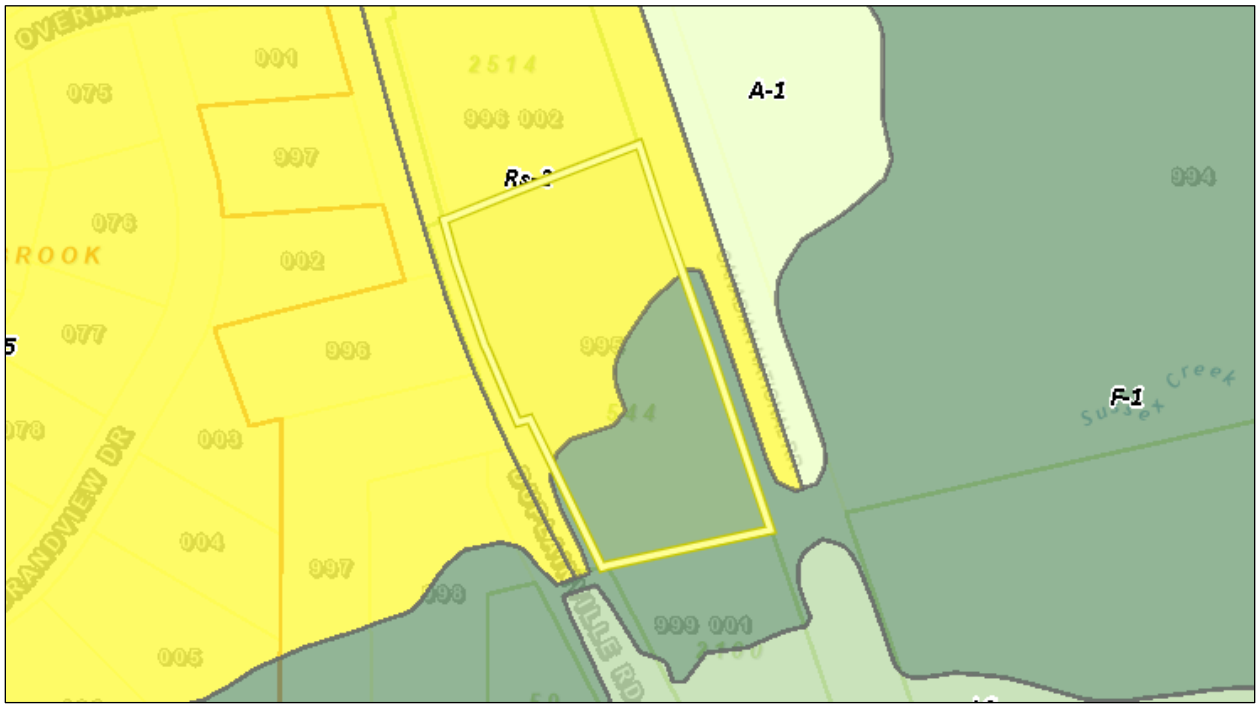


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# ADDENDUM D
# ZONING MAP & CODE


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 30 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0406 Rs-2, SINGLE-FAMILY RESIDENTIAL DISTRICT**

The Rs-2, Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre.

a. Permitted Principal Uses

(1) One Single-family dwelling with attached or detached garages as defined in section 17.1402.

(2) Foster homes and community living arrangements, including CBRFs, as set forth in Wisconsin Statutes.

(3) Family day-care home as set forth in Section 66.1017 of Wisconsin Statutes.

b. Permitted Accessory Uses

(1) Home occupations and professional home offices as defined herein.

(2) Yard and gardening equipment storage structures not exceeding 192 square feet in area. (Also see section 17.0700).

(3) Hobby Kennels. (Cr. 13-09)

c. Repealed 13-09

d. Lot Area and Width

(1) Lots shall have a minimum area of 2.0 net acres.

(2) Lots shall have a width of not less than 220 feet at the building setback line.

e. Building Height and Size

(1) No principal building or parts of a principal building shall exceed 35 feet in height.

(2) No accessory structure shall be more than 18 feet in height.

(3) The minimum floor area of one or two-story dwelling unit shall be as follows:


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| Number of Bedrooms Per Dwelling | Unit Minimum | Total Area Minimum First Floor Area |
|---|---|---|
| One | 1,200 square feet | 1,200 square feet |
| Two | 1,300 square feet | 1,200 square feet |
| Three | 1,500 square feet | 1,200 square feet |
| Four or More | 1,700 square feet | 1,200 square feet |

No bedroom shall be less than 100 square feet in area exclusive of closets.
(4) The sum total of the first floor area of the principal building and all accessory buildings shall not exceed 6.0 percent of the lot area.
f. Setback and Yards
(1) There shall be a minimum building (or street) setback of 45 feet from the right-of-way of all public streets, roads, or highways.
(2) There shall be a side yard on each side of all structures not less than 25 feet in width.
(3) There shall be a rear yard of not less than 35 feet.
(4) There shall be a minimum building setback of 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see sub-section 17.0435)
(5) There shall be a minimum set back of 100 feet from any abutting property for any building primarily used for housing or sheltering animals.
g. Parking Space
See Section 17.0600
h. Minimum Utility Service
Electricity, approved private water supply, and an approved on-site soil absorption sanitary sewage disposal system. All on-site soil absorption sanitary disposal systems must be approved by the Waukesha County Health and Human Services Department prior to installation. Note: If public sanitary sewerage and/or water supply facilities are available to the property, no on-site sewage disposal system or private water supply system will be permitted to be constructed.

**CITY OF PEWAUKEE MUNICIPAL CODE 91 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0435 F-1, FLOODPLAIN DISTRICT. (Rep. & Rec. 08-12, 12-12, 14-14)**
The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. Also included within the F-1, Floodplain are those areas adjacent to the base flood designated by the Wisconsin Department of Natural Resources (WisDNR) as Flood Storage Districts (FSDs). The proper regulation of these areas will serve to maintain and improve water quality, prevent flood damage, protect wildlife habitat, and prohibit the location of walled structures, as defined herein, on lands, which are generally not suitable for such use due to possible flooding.
a. FINDING OF FACT


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Uncontrolled development and use of the floodplains and rivers of the City would impair the public health, safety, convenience, general welfare and tax base.
b. STATEMENT OF PURPOSE
This ordinance is intended to regulate floodplain development to:
(1) Protect life, health and property;
(2) Minimize expenditures of public funds for flood control projects;
(3) Minimize rescue and relief efforts undertaken at the expense of the taxpayers;
(4) Minimize business interruptions and other economic disruptions;
(5) Minimize damage to public facilities in the floodplain;
(6) Eliminate the occurrence of future flood blight areas in the floodplain;
(7) Eliminate the victimization of unwary land and homebuyers;
(8) Prevent increases in flood heights that could increase flood damage and result in conflicts between property owners; and
(9) Eliminate development in a floodplain, recognizing that there may be existing developed land lying within the delineated F-1, Floodplain District and there may be the need to locate public utilities or streets within the F-1, Floodplain District.
c. TITLE
This sub-section of the City Zoning Ordinance shall be commonly known as the 'Floodplain Ordinance' for the City of Pewaukee, Wisconsin.
d. STATUTORY AUTHORIZATION
This sub-section of the City Zoning Ordinance is adopted pursuant to the authorization in Sections 62.23 and 87.30 of Wisconsin Statutes as well as Ch. NR 116 of the Wisconsin Administrative Code which is included as Appendix 5 in this zoning ordinance.
e. GENERAL PROVISIONS
(1) AREAS TO BE REGULATED
This ordinance regulates all areas that would be covered by the regional flood or base flood as shown on the Flood Insurance Rate Map (FIRM) or other maps approved by DNR such as the WisDNR Flood Storage Districts (FSDs). Base flood elevations (BFE) are derived from the flood profiles in the Flood Insurance Study (FIS) and are shown as AE, A1-30, and AH Zones on the FIRM. Other regulatory zones are displayed as A and AO zones. Regional Flood Elevations (RFE) may be derived from other studies. If more than one map or revision is referenced, the most restrictive information shall apply.
(2) OFFICIAL MAPS & REVISIONS
The boundaries of the SFHA are designated on the maps listed in (3) below. Any change to the BFE or any changes to the boundaries of the floodplain or floodway in the FIS or on the FIRM must be reviewed and approved by the DNR and FEMA through the Letter of Map Change process (see 17.0435t Amendments) before it is effective. No changes to RFE's on non-FEMA maps shall be effective until approved by the DNR. These maps, profiles and revisions are on file in the City Planning, Public Works or Building Inspection offices at Pewaukee City Hall and may also be available in the Waukesha County Park and Land Use Department offices in the Courthouse. If more than one map or revision is referenced for the same area, the most restrictive information shall apply.
(3) OFFICIAL MAPS AND PROFILES: Based on the FIS:
Official FIRMs and Profiles Encompassing the City of Pewaukee are FIRM panel numbers:55133C0181G, 55133C0182G, 55133C0183G, 55133C0184G, 55133C0191G, 5133C0192G, 55133C0201G, 55133C0202G, 55133C0203G, 55133C0204G, 55133C0206G, 55133C0208G, 55133C0211G, 55133C0212G, 55133C0213G, 55133C0214G, 55133C0216G dated November 5, 2014; with corresponding profiles that are based on the Flood Insurance Study (FIS) dated February 9, 2014, and numbered: 55133CV001C, 55133CV002C, 55133CV003C. (Approved by: WisDNR and/or FEMA)
(4) MAPS BASED ON OTHER STUDIES:


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Flood Storage Map. Also included within the City's F-1, Floodplain District, are the flood storage districts as depicted on Waukesha County Wisconsin Flood Storage District Map Panels 3, 5 and 6, based on a WisDNR study dated November 5, 2014. Prepared and Approved by WisDNR.
(5). ESTABLISHMENT OF FLOODPLAIN ZONING DISTRICT
The F-1, Floodplain as defined in this City Zoning Ordinance includes:
All land and water area lying within the boundary of the SFHA as defined above plus any FSD.
(6) LOCATING FLOODPLAIN BOUNDARIES
Discrepancies between boundaries on the official floodplain zoning map and actual field conditions shall be resolved using the criteria in (a) or (b) below. If a significant difference exists, the map shall be amended according to section 17.0435t Amendments. The zoning administrator can rely on a boundary derived from a profile elevation to grant or deny a land use permit, whether or not a map amendment is required. The zoning administrator shall be responsible for documenting actual pre-development field conditions and the basis upon which the district boundary was determined and for initiating any map amendments required under this section. Disputes between the zoning administrator and an applicant over the district boundary line shall be settled according to section 17.1007 and the criteria in (a) and
(b) below. Where the flood profiles are based on established base flood elevations from a
FIRM, FEMA must approve any map amendment or revision pursuant to section 't' Amendments of this sub-section.
(a) If flood profiles exist, the map scale and the profile elevations shall determine the district boundary. The regional or base flood elevations shall govern if there are any discrepancies.
(b) Where flood profiles do not exist for projects, the location of the boundary shall be determined by the map scale.
(7) REMOVAL OF LANDS FROM FLOODPLAIN
Compliance with the provisions of this ordinance shall not be grounds for removing land from the floodplain unless it is filled at least two feet above the regional or base flood elevation, the fill is contiguous to land outside the floodplain, and the map is amended pursuant to section 't' Amendments of this sub-section.
In addition, no floodplain may be filled and no walled structure built within the SFHA or FSDs with the exception of the construction of public utility and transportation facilities required by a unit/agency of government, or an approved structure requiring water frontage which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District unless:
(a) Said land has been previously filled prior to the effective date of the adoption on this amendment so that the elevation of the lowest floor (including basement) of any existing or proposed walled structure or building is at least two feet above the base flood elevation;
(b) The proposed filled land does not form an island and can be accessed from other surrounding lands without entering the F-1, Floodplain District;
(c) There is an area of land outside the F-1, Floodplain District but adjacent to and on the same property as the proposed filled land equal to at least four (4) times the areal extent and volume of the proposed filled area that is added to the F-1, Floodplain District based on plans approved by the City Plan Commission;
(d) The height of the downstream base flood is not increased by proposed fill;
(e) The floodplain boundaries shown on all official maps are amended pursuant to section 'n' of this sub-section; and
(f) A study is prepared and certified by a state registered professional engineer, establishing that:
i. The fill, lowest floor and floodproofing elevation shall have no effect upon the base flood elevation either upstream or downstream and are in compliance with this ordinance; or
ii. The fill, lowest floor and floodproofing elevations may have the effect of raising the base flood elevation either upstream or downstream if otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Conditional Letter of Map Revision (CLOMR) prior to issuance of any local permit(s); or


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iii. The fill, lowest floor and floodproofing elevations may have the effect of lowering the base flood elevation either upstream or downstream and are otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Letter of Map Change (LOMC) prior to issuance of any local permit(s). Please also see subsection17.1108b and Appendix 5.

(8) COMPLIANCE

Any development or use within the areas regulated by this ordinance shall be in compliance with the terms of this ordinance, and other applicable local, state, and federal regulations.

(9) MUNICIPALITIES AND STATE AGENCIES REGULATED

Unless specifically exempted by law, all cities, villages, towns, and counties are required to comply with this ordinance and obtain all necessary permits. State agencies are required to comply if s.13.48(13) of Wisconsin Statutes applies. The construction, reconstruction, maintenance and repair of state highways and bridges by the Wisconsin Department of Transportation is exempt when s.30.2022 of Wisconsin Statutes applies.

(10) ABROGATION AND GREATER RESTRICTIONS

(a) This ordinance supersedes all the provisions of any City ordinance enacted under s. 62.23 or s.87.30 of Wisconsin Statutes., which relate to floodplains. A more restrictive ordinance shall continue in full force and effect to the extent of the greater restrictions, but not otherwise.

(b) This ordinance is not intended to repeal, abrogate or impair any existing deed restrictions, covenants or easements. If this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.

(11) INTERPRETATION

In their interpretation and application, the provisions of this ordinance are the minimum requirements liberally construed in favor of the City and are not a limitation on or repeal of any other powers granted by the Wisconsin Statutes. If a provision of this ordinance or ch. NR 116, Wis. Adm. Code is unclear, the provision shall be interpreted in light of the standards in effect on the date of the adoption of this ordinance or in effect on the date of the most recent text amendment to this ordinance.

(12) WARNING AND DISCLAIMER OF LIABILITY

The flood protection standards in this ordinance are based on engineering experience and scientific research related to a 100 year recurrence interval flood event (one percent change in any year). Larger floods may occur or the flood height may be increased by man-made or natural causes. This ordinance does not imply or guarantee that non-floodplain areas or permitted floodplain uses will be free from flooding and flood damages. This ordinance does not create liability on the part of, or a cause of action against, the city or any officer or employee thereof for any flood damage that may result from reliance on this ordinance.

(13) SEVERABILITY

Should any portion of this ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected.

(14) ANNEXED AREAS

The Waukesha County floodplain zoning provisions in effect on the date of annexation of town lands shall remain in effect and shall be enforced by the city for all annexed areas until the city adopts and enforces an ordinance which meets the requirements of ch. NR 116, Wis. Adm. Code and 44 CFR 59-72, National Flood Insurance Program (NFIP). These annexed lands are described on the city's official zoning map. County floodplain zoning provisions are incorporated by reference for the purpose of administering this section and are on file in the office of the city zoning administrator. All plats or maps of annexation shall show the regional or base flood elevation and the floodway location.

f. GENERAL STANDARDS APPLICABLE TO ALL FLOODPLAIN DISTRICTS (Also see section 17.0200 of this ordinance)

The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a


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base flood floodplain as defined herein except as set forth in sections 'k(3)' and 'l(2)' of this sub-section, and subsection
17.0436. All new construction and permitted structural improvements to existing buildings/structures within a floodplain shall be designed or modified so as to adequately anchor such structure or building to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads; be constructed with materials resistant to flood damage; be constructed by methods and practices that minimize flood damages; and be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. In addition to the requirements of Chapter 18 (Land Division Ordinance) of City Codes and Ordinances, subdivision of land shall be reviewed for compliance with the above standards and no newly created building parcel less than ten (10) acres in size shall be located within a base flood floodplain. (see section 'l (2)' of this sub-section). Adequate drainage shall be provided to reduce exposure to flood hazards and all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damages. All proposed land development plans, including land divisions and manufactured mobile home parks shall include BFE data for any land division or development that meets the definition within this zoning ordinance or Chapter 18 of the City Codes and Ordinances. (See www.cityofpewaukee.us)
g. HYDRAULIC AND HYDROLOGIC ANALYSES
(1) No building or development shall:
(a) Obstruct natural storm water flow, defined as development which blocks the conveyance of floodwaters by itself or with other development, causing any increase in the regional or base flood height; or
(b) Cause any increase in the regional or base flood height due to floodplain storage area lost.
(2) The zoning administrator shall deny permits if it is determined the proposed development will obstruct flow or cause any increase in the regional or base flood height, based on the officially adopted FIRM or other adopted map, unless the provisions of section 't' Amendments of this sub-section are met.
h. WATERCOURSE ALTERATIONS
No land use permit to alter or relocate a watercourse in a mapped floodplain shall be issued until the local official has notified in writing all adjacent municipalities, the WisDNR (Department) and FEMA regional offices, and required the applicant to secure all necessary state and federal permits. The standards of section 'g' of this sub-section must be met and the flood carrying capacity of any altered or relocated watercourse shall be maintained. As soon as is practicable, but not later than six months after the date of the watercourse alteration or relocation and pursuant to section 't' Amendments of this sub-section, the City shall apply for a Letter of Map Revision (LOMR) from FEMA. Any such alterations must be reviewed and approved by FEMA and the WisDNR through the LOMC process.
i. CHAPTER 30, 31of WISCONSIN STATUTES DEVELOPMENT
Approved development which requires a permit from the Department, under chs. 30 and 31 of Wisconsin Statutes, such as docks, piers, wharves, bridges, utilities, public streets/highways, culverts, dams and navigational aids, may be allowed if the necessary permits are obtained and any amendments to the floodplain zoning ordinance are made according to section 't' Amendments of this sub-section.
j. PUBLIC OR PRIVATE CAMPGROUNDS
Public or private campgrounds, as defined herein, shall not be located within the F-1,
Floodplain District.
k. PERMITTED USES IN THE F-1, FLOODPLAIN DISTRICT
The following open space uses are allowed in the F-1, Floodplain District if they are not prohibited by any other ordinance; they meet the standards in sections 'l' and 'm' of this sub-section; and, all permits or certificates have been issued according to section 'p(1)' of this sub-section.
(1) Non-structural agricultural uses, such as: general farming, outdoor plant nurseries, horticulture, viticulture and wild crop harvesting.
(2) Non-structural industrial and commercial uses, such as loading areas, parking areas and airport landing strips.


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(3) Non-structural recreational uses, such as golf courses, tennis courts, archery ranges, picnic grounds, boat ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting, trap and skeet activities, hunting and fishing areas and hiking and horseback riding trails, subject to the fill limitations of section 'l(5)' of this subsection.
(4) Uses or non-walled structures accessory to open space uses, or classified as historic structures that comply with sections 'l' and 'm' of this sub-section.
(5) Extraction of sand, gravel or other earth materials that comply with section 'l(5)' of this sub-section.
(6) Functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes.
(7) Public utilities, streets/highways and bridges that comply with section 'l(4)' of this subsection.
l. STANDARDS FOR DEVELOPMENT IN THE F-1, FLOODPLAIN DISTRICT
Any existing or proposed development within the SFHA and FSDs must adhere to the requirements of this ordinance.
(1) GENERAL
(a) Any permitted development in the SFHA shall comply with section 'f' of this subsection and have a low flood damage potential.
(b) Applicants shall provide the following data to determine the effects of the proposal according to sections 'g' and 'q' of this sub-section:
i. A cross-section elevation view of the proposal, perpendicular to the watercourse, showing if the proposed development will obstruct flow; or
ii. An analysis performed by a state registered professional engineer calculating the effects of the proposal on regional or base flood height.
(c) The zoning administrator shall deny the permit application if the project will cause any increase in the flood elevations upstream or downstream, based on the data submitted for (b) above.
(2) STRUCTURES
Structures accessory to permanent open space uses or functionally dependent on a waterfront location such as an approved boathouse or boat dock may be allowed by permit if the structures comply with all the following criteria:
(a) Not designed for human habitation, does not have a high flood damage potential and is constructed to minimize flood damage;
(b) Has a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, and the bottom of all such openings being no higher than one foot above grade. The openings shall be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Must be anchored to resist flotation, collapse, and lateral movement;
(d) Mechanical and utility equipment must be elevated or flood proofed above the flood protection elevation; and
(e) Must not obstruct flow of flood waters or cause any increase in flood levels during the occurrence of the regional or base flood.
(3) FLOODPROOFING FOR NON-RESIDENTIAL STRUCTURES
Actions or measures designed to reduce or prevent flood damage must be taken for those buildings or structures which cannot be removed from the floodplain or, if substantially damaged, must be erected within the floodplain, including but not limited to the following: structural modification; installation of special equipment such as water extraction equipment; addition of operation and management safeguards; supplemental underpinning and reinforcement of floors; reinforcement of walls; sealing of doors and windows and other exterior openings; anchoring of buoyant tanks and material; erection of watertight bulkheads, windows and doors; waterproof treatment of exposed wood; elevation of flood vulnerable utilities and mechanical equipment; use of masonry construction with waterproof mortar; installation of submersible sump pumps; placement of backflow and automatic swing check valves; installation of wire reinforced glass;


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placement of drain plugs and flood drain pipes; and removal of anything that will float or be damaged by water or flood borne debris. These and any other floodproofing measures should be extended to at least two feet above the BFE. Most of the aforementioned measures require a building permit issued by the City Building Inspector. All floodproofing measures must be certified by a registered professional engineer or architect.

(4) PUBLIC UTILITIES, STREETS AND BRIDGES

Public utilities, streets and bridges may be allowed by permit, if:

(a) Adequate floodproofing measures are provided to the flood protection elevation; and

(b) Construction meets the development standards of section 'g' of this sub-section.

(5) FILL OR DEPOSITION OF MATERIALS

No floodplain may be filled and no walled structure built within the F-1, Floodplain as defined herein with the possible exception of the construction of required public utility and transportation facilities and structures requiring a waterfront location, which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District. PLEASE SEE SUBSECTION 17.0435e(7), ABOVE as well as subsection 17.1108b and Appendix 5.

m. PROHIBITED USES

All uses not listed as permitted uses in section 'k' of this sub-section are prohibited, including the following uses:

(1) Walled structures, structures with high flood damage potential, or those not associated with permanent open-space uses, including mobile homes and recreation vehicles;

(2) Stored materials that are buoyant, flammable, explosive, injurious to property, water quality, or human, animal, plant, fish or other aquatic life;

(3) Uses not in harmony with or detrimental to uses permitted in the adjoining zoning districts;

(4) Any private or public on-site wastewater treatment/disposal system, except portable latrines that are removed prior to flooding and systems associated with recreational areas and Department-approved campgrounds that meet the applicable provisions of local ordinances and ch. SPS 383 of the Wisconsin Administrative Code;

(5) Any public or private wells which are used to obtain potable water, except those for recreational areas that meet the requirements of local ordinances and chs. NR 811 and NR 812 of the Wisconsin Administrative Code;

(6) Any solid, liquid, or hazardous waste disposal sites;

(7) Any wastewater treatment ponds or facilities, except those permitted under s. NR 110.15(3)(b) of the Wisconsin Administrative Code;

(8) Any sanitary sewer or water supply lines, except those to service existing or proposed development located outside the floodway which complies with the regulations set forth herein;

(9) Storm water management retention or detention ponds;

(10) Any use requiring excavation or grading except those uses listed in section 'g' of this sub-section;

(11) Storage of materials such as compost, mulch, gravel, soil, fill (clean or unclean).

n. FLOOD STORAGE DISTRICT (FSDs) OF THE F-1, FLOODPLAIN

A 'FSD' is that portion of the floodplain where storage of floodwaters has been taken into account and is relied upon to reduce the regional or base flood discharge. The FSD protects the flood storage areas and assures that any development in the storage areas will not decrease the effective flood storage capacity which would cause higher flood elevations.

(1) APPLICABILITY

The provisions of this section apply to all areas within the FSDs, as shown on the official floodplain zoning maps.

(2) PERMITTED USES

Any use or development which occurs in a flood storage district must meet the applicable requirements in section 'l' of this sub-section.


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o. NON-CONFORMING STRUCTURES AND USES IN THE F-1, FLOODPLAIN DISTRICT
If these standards conform to s. 62.23(7)(h) of Wisconsin Statutes, they shall apply to all modifications or additions to any nonconforming use or structure and to the use of any structure or premises which was lawful before the passage of this ordinance or any amendment thereto.
(1) GENERAL
The existing lawful use of a structure or its accessory use which is not in conformity with the provisions of this ordinance may continue subject to the following conditions:
(a) No modifications or additions to a nonconforming use or structure shall be permitted unless they comply with this ordinance. The words "modification" and "addition" include, but are not limited to, any alteration, structural repair, rebuilding or replacement of any such existing use, structure or accessory structure or use. Maintenance is not considered a modification and includes painting, decorating, paneling and other nonstructural components and the maintenance, repair or replacement of existing private sewage or water supply systems or connections to public utilities. Any costs associated with the repair of a damaged structure are not considered maintenance. For the purposes of this subsection of the zoning ordinance, the construction of a deck that does not exceed 200 square feet and that is adjacent to the exterior wall of a principal structure is not a modification or addition. The roof of the structure may extend over a portion of the deck in order to provide safe ingress and egress to the principal structure.
(b) If a nonconforming use or the use of a nonconforming structure is discontinued for 12 consecutive months, it is no longer permitted and any future use of the property, and any structure or building thereon, shall conform to the applicable requirements of this ordinance;
(c) The city shall keep a record which lists all nonconforming uses and nonconforming structures, their present equalized assessed value, the cost of all modifications or additions which have been permitted, and the percentage of the structure's total current value those modifications represent;
(d) No modification or addition to any nonconforming structure or any structure with a nonconforming use, which over the life of the structure would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section. The cost of elevating the lowest floor of a nonconforming building or a building with a nonconforming use to the flood protection elevation is excluded from the 50% provisions of this paragraph;
(e) No maintenance to any nonconforming structure or any structure with a nonconforming use, the cost of which would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(f) If on a per event basis the total value of the work being done under (d) and (e) equals or exceeds 50% of the present equalized assessed value, the work shall not be permitted unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(g) Except as provided in section 'l' of this sub-section, if any nonconforming structure or any structure with a nonconforming use is destroyed or is substantially damaged, it cannot be replaced, reconstructed or rebuilt unless the use and the structure meet the current ordinance requirements. A structure is considered substantially damaged if the total cost to restore the structure to its pre-damaged condition equals or exceeds 50% of the structure's current equalized assessed value.
(h) For nonconforming buildings that are substantially damaged or destroyed by a non-flood event, the repair or reconstruction of any such nonconforming building shall be permitted in order to restore it to the size and use in effect prior to the damage event, provided that the requirements below are met and all required permits have been granted prior to the start of construction.
(2) RESIDENTIAL STRUCTURES


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(a) Structures shall have the lowest floor, including basement, elevated to or above the base flood elevation using fill, pilings, columns, posts or perimeter walls. Perimeter walls must meet the requirements of section 'o(4)' of this sub-section.
(b) Structures shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and shall be constructed with methods and materials resistant to flood damage.
(c) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
(d) Owners of structures in the SFHA must obtain, review and utilize any flood data available from a federal, state or other source.
(e) Structures in the SFHA with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section and adequate drainage paths or swales shall be placed around the structures on slopes to guide flood waters around and away from the structure without being diverted to adjacent properties without permission.
(3) NON-RESIDENTIAL STRUCTURES
(a) Structures shall meet the requirements of section 'o(2) a-e' of this sub-section.
(b) Structures shall either have the lowest floor, including basement, elevated to or above the regional or base flood elevation; or, together with attendant utility and sanitary facilities, shall meet the standards in section 'o(4)(a) and o(4)(b)' of this sub-section. A registered professional engineer or architect must certify that the perimeter walls shall be constructed so as to protect the structure.
(c) Structures in AO Zones with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section.
(4) FLOODPROOFING STANDARDS FOR NONCOMFORMING STRUCTURES OR USES – NON-RESIDENTIAL STRUCTURES
(a) No permit or variance shall be issued for a non-residential structure designed to be watertight below the regional or base flood elevation until the applicant submits a plan certified by a registered professional engineer or architect that the floodproofing measures will protect the structure or development to the flood protection elevation and submits a FEMA Floodproofing Certificate.
(b) For a structure designed to allow the entry of floodwaters, no permit or variance shall be issued until the applicant submits a plan either:
i. certified by a registered professional engineer or architect; or
ii. meets or exceeds the following standards:
1. a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. the bottom of all openings shall be no higher than one foot above grade; and
3. openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Floodproofing measures shall be designed, as appropriate, to:
i. Withstand flood pressures, depths, velocities, uplift and impact forces and other regional flood factors;
ii. Protect structures to the flood protection elevation;
iii. Anchor structures to foundations to resist flotation and lateral movement;
iv. Minimize or eliminate infiltration of flood waters; and
v. Minimize or eliminate discharges into flood waters.
(5) OFFICIALLY DESIGNATED HISTORIC STRUCTURES
A nonconforming historic structure may be altered if: the alteration will not preclude the structure's continued designation as a historic structure; the alteration will comply with section 'l' of this sub-section; flood resistant materials are used; and construction practices and floodproofing methods that comply with section 'o' of this sub-section are used. Repair or rehabilitation of historic structures shall be exempt from the development standards of section 'o(2)' of this sub-section if it is determined that the proposed repair or


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rehabilitation will not preclude the structure's continued designation as a historic structure and is the minimum necessary to preserve the historic character and design of the structure.
(6) STRUCTURES IN A FLOOD STORAGE DISTRICT (FSD)
No modifications or additions shall be allowed to any nonconforming structure in a flood storage area unless the standards outlined in section 'n' of this sub-section are met.
p. ADMINISTRATION
(1) ZONING ADMINISTRATOR – DUTIES AND POWERS (see 17.0203 &17.1000)
The zoning administrator is authorized to administer this ordinance and shall have the following duties and powers:
(a) Attend all meetings of the Zoning Board of Appeals.
(b) Advise applicants of the ordinance provisions, assist in preparing permit applications and appeals, and assure that the regional or base flood elevation for the proposed development is shown on all permit applications.
(c) Issue permits and inspect properties for compliance with provisions of this ordinance and issue certificates of compliance where appropriate.
(d) Inspect and assess all damaged floodplain structures to determine if substantial damage to the structures has occurred.
(e) Keep records of all official actions such as:
i. All permits issued, inspections made, and work approved;
ii. Documentation of certified lowest floor and regional or base flood elevations;
iii. Issuance of Floodproofing Certificates.
iv. Water surface profiles, floodplain zoning maps and ordinances, nonconforming uses and structures including changes, appeals, variances and amendments.
v. All substantial damage assessment reports for floodplain structures.
vi. List of nonconforming structures and uses.
(f) Submit copies of the following items to the Department Regional office:
i. Within 10 days of the decision, a copy of any decisions on variances, appeals for map or text interpretations, and map or text amendments;
ii. Copies of case-by-case analyses and other required information including an annual summary of floodplain zoning actions taken.
iii. Copies of substantial damage assessments performed and all related correspondence concerning the assessments.
(g) Investigate, prepare reports, and report violations of this ordinance to the City
Planner and City Attorney for prosecution. Copies of the reports shall also be sent to the Department Regional office.
(h) Submit copies of amendments to the FEMA Regional office.
(2) LAND USE PERMIT
A land use permit shall be obtained before any new development; repair, modification or addition to an existing structure; or change in the use of a building or structure, including sewer and water facilities, may be initiated. Application for a permit to the
City planner or zoning administrator shall include:
(a) GENERAL INFORMATION
i. Name and address of the applicant, property owner and contractor;
ii. Legal description, proposed use, and whether it is new construction or a modification.
(b) A SITE DEVELOPMENT PLAN
A site development plan drawn to scale shall be submitted with the permit application form and shall contain:
i. Location, dimensions, area and elevation of the lot or parcel;
ii. Location of the ordinary high water mark (OHWM) of any abutting navigable waterways;
iii. Location of any structures with distances measured from the lot lines and street center lines;
iv. Location of any existing or proposed on-site sewage systems or private water supply systems;


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v. Location and elevation of existing or future access roads;
vi. Location of floodplain and floodway limits as determined from the official floodplain zoning maps;
vii. The elevation of the lowest floor of proposed buildings and any fill using the vertical datum from the adopted study – either National Geodetic Vertical Datum
(NGVD) or North American Vertical Datum (NAVD);
viii. Data sufficient to determine the regional or base flood elevation in NGVD or NAVD at the location of the development and to determine whether or not the requirements of sections 'k, l, or m' of this sub-section are met; and
ix. Data to determine if the proposed development will cause an obstruction to flow or an increase in regional or base flood height or discharge according to section 'g' of this sub-section. This may include any of the information noted in section 'l(1)' of this sub-section.
(3) EXPIRATION
For the purposes of this subsection of this ordinance all permits issued for floodplain development shall expire no later than 180 days after issuance. The permit may be extended for up to 180 day for good and sufficient cause.
(4) OTHER PERMITS
Prior to obtaining a land use permit the applicant must obtain permits from all other federal, state, county and city permitting agencies, including but not limited to: the U.S. Army Corp of Engineers under the s. 404 of the Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1344.
q. HYDRAULIC AND HYDROLOGIC STUDIES TO ANALYZE DEVELOPMENT
All hydraulic and hydrologic studies shall be completed under the direct supervision of a state registered professional engineer. The registered professional engineer shall be responsible for the technical adequacy of the study. All studies shall be reviewed and approved by the Department.
(1) ZONE A FLOODPLAIN AREA
(a) HYDROLOGY
The appropriate method shall be based on the standards in ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODELING
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or Base Flood Elevation and the following:
i. Determination of the required limits of the hydraulic model shall be based on detailed study information for downstream structures (dam, bridge, culvert) to determine adequate starting WSEL for the study.
ii. Channel sections must be surveyed.
iii. Minimum four foot contour data in the overbanks shall be used for the development of cross section overbank and floodplain mapping.
iv. A maximum distance of 500 feet between cross sections is allowed in developed areas with additional intermediate cross sections required at transitions in channel bottom slope including a survey of the channel at each location.
v. The most current version of HEC-RAS shall be used.
vi. A survey of bridge and culvert openings and the top of road is required at each structure.
vii. Additional cross sections are required at the downstream and upstream limits of the development and any necessary intermediate locations based on the length of the reach if greater than 500 feet.
viii. Standard accepted engineering practices shall be used when assigning parameters for the base model such as flow, Manning's N values, expansion and contraction coefficients or effective flow limits. The base model shall be calibrated to past flooding data such as high water marks to determine the reasonableness of the model results. If no historical data is available, adequate justification shall be provided for any parameters outside standard accepted engineering practices.
ix. The model must extend past the upstream limit of the difference in the existing and proposed flood profiles in order to provide a tie-in to existing studies. The height difference between the proposed flood profile and the existing study profiles shall be no more than 0.00 feet.


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(c) MAPPING
A work map of the stream reach studied shall be provided, showing all cross section locations, floodway/floodplain limits based on best available topographic data, geographic limits of the development and whether the development is located in the floodway.
i. If the development is located outside of the floodway, then it is determined to have no impact on the regional or base flood elevation.
ii. If any part of the development is in the floodway, it must be added to the base model to show the difference between existing and proposed conditions. The study must ensure that all coefficients remain the same as in the existing model, unless adequate justification based on standard accepted engineering practices is provided.
(2) ZONE AE FLOODPLAIN AREA
(a) HYDROLOGY
If the proposed hydrology will change the existing study, the appropriate method to be used shall be based on ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODEL
The regional or base flood elevation shall be based on the standards in ch. NR
116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or base Flood Elevation and the following:
i. Duplicate Effective Model - The effective model shall be reproduced to ensure correct transference of the model data and to allow integration of the revised data to provide a continuous FIS model upstream and downstream of the revised stream reach. If data from the effective model is available, models shall be generated that duplicate the FIS profiles and the elevations shown in the Floodway Data Table in the FIS report to within 0.1 foot.
ii. Corrected Effective Model - The Corrected Effective Model shall not include any man-made physical changes since the effective model date, but shall import the model into the most current version of HEC-RAS for Department review.
iii. Existing (Pre-Project Conditions) Model - The Existing Model shall be required to support conclusions about the actual impacts of the project associated with the Revised (Post-Project) Model or to establish more up-to-date models on which to base the Revised (Post-Project) Model.
iv. Revised (Post-Project Conditions) Model - The Revised (Post-Project
Conditions) Model shall incorporate the Existing Model and any proposed changes to the topography caused by the development. This model shall reflect proposed conditions.
v. All changes to the Duplicate Effective Model and subsequent models must be supported by certified topographic information, bridge plans, construction plans and survey notes.
vi. Changes to the hydraulic models shall be limited to the stream reach for which the revision is being requested. Cross sections upstream and downstream of the revised stream reach shall be identical to those in the effective model and result in water surface elevations and top widths computed by the revised models matching those in the effective models upstream and downstream of the revised stream reach as required. The Effective Model shall not be truncated.
(c) MAPPING
Maps and associated engineering data shall be submitted to the Department for review which meet the following conditions:
i. Consistency between the revised hydraulic models, the revised floodplain and floodway delineations, the revised flood profiles, topographic work map, annotated FIRMs and/or Flood Boundary Floodway Maps (FBFMs), construction plans, bridge plans.
ii. Certified topographic map of suitable scale, contour interval, and a planimetric map showing the applicable items. If a digital version of the map is available, it may be submitted in order that the FIRM may be more easily revised.


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iii. Annotated FIRM panel showing the revised 1.0% and 0.2% annual chance floodplains and floodway boundaries.
iv. If an annotated FIRM and/or FBFM and digital mapping data (GIS or CADD) are used then all supporting documentation or metadata must be included with the data submission along with the Universal Transverse Mercator (UTM) projection and State Plane Coordinate System in accordance with FEMA mapping specifications.
v. The revised floodplain boundaries shall tie into the effective floodplain boundaries.
vi. All cross sections from the effective model shall be labeled in accordance with the effective map and a cross section lookup table shall be included to relate to the model input numbering scheme.
vii. Both the current and proposed floodways shall be shown on the map.
viii. The stream centerline, or profile baseline used to measure stream distances in the model shall be visible on the map.
(3) CERTIFICATE OF COMPLIANCE
For the purposes of this subsection, no land shall be occupied or used, and no building which is hereafter constructed, altered, added to, modified, repaired, rebuilt or replaced shall be occupied until approved by either the Zoning Administrator, City Planner, Plan Commission, Common Council or combinations of these persons or bodies as stipulated in section 17.0200 or elsewhere in this zoning ordinance, and only after the owner has submitted a certification signed by a registered professional engineer, architect or land surveyor that any fill and lowest floor and floodproofing elevations are in compliance with the permit issued. Floodproofing measures also require certification by a registered professional engineer or architect that floodproofing measures meet the requirements of this subsection.
r. ZONING BOARD OF APPEALS (ZBA)
(PLEASE SEE SUBSECTION 17.1000 OF THIS ORDINANCE)
s. PUBLIC INFORMATION
The Zoning Administrator and authorized assistants, the City Planner and other City staff involved in interaction with the public and the media shall provide any electronic, written or verbal information regarding floodplains upon request. In addition they shall:
(1) Keep current records of local flooding;
(2) Retain all available official floodplain maps and documents for ready use;
(3) Provide flood information to other state, county and local agencies and, when possible, mark previously flood inundated structures to show the level of inundation.
(4) Retain any real estate transfers showing in what floodplain district any real property is located.
t. AMENDMENTS
Obstructions or increases may only be permitted if amendments are made to this subsection of the zoning ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section.
(1) In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a CLOMR from FEMA and amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section. Any such alterations must be reviewed and approved by FEMA and the DNR.
(2) The governing body shall change or supplement the floodplain zoning district boundaries and this ordinance in the manner outlined in section 't(3)' of this sub-section below. Actions which require an amendment to the ordinance and/ or submittal of a LOMC include, but are not limited to, the following:
(a) Any fill or floodway encroachment that obstructs flow causing any increase in the regional or base flood height;
(b) Any change to the floodplain boundaries and/or watercourse alterations on the FIRM;
(c) Any changes to any other officially adopted floodplain maps listed in section 'e(4)' of this sub-section;
(d) Any floodplain fill which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain;


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(e) Correction of discrepancies between the water surface profiles and floodplain maps;
(f) Any upgrade to a floodplain zoning ordinance text required by s. NR 116.05, Wis.
Adm. Code, or otherwise required by law, or for changes by the city; and
(g) All channel relocations and changes to the maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a BFE from a FIRM requires prior approval by FEMA.
(3) Ordinance amendments may be made upon petition of any party according to the provisions of s. 62.23 of Wisconsin Statutes. The petitions shall include all data required by section 'p(2)' of this sub-section. The Building and/or Land Use Permit shall not be issued until a LOMR is issued by FEMA for the proposed changes.
(a) The proposed amendment shall be referred to the City Plan Commission for a public hearing and recommendation to the governing body. The amendment and notice of public hearing shall be submitted to the Department Regional office for review prior to the hearing. The amendment procedure shall comply with the provisions of s. 62.23 of the Wisconsin Statutes.
(b) No amendments shall become effective until reviewed and approved by the
Department.
(c) All persons petitioning for a map amendment that obstructs flow causing any increase in the regional or base flood height, shall obtain flooding easements or other appropriate legal arrangements from all adversely affected property owners and notify local units of government before the amendment can be approved by the governing body.
u. ENFORCEMENT AND PENALTIES
Any violation of the provisions of this ordinance by any person shall be unlawful and shall be referred to the city attorney who shall expeditiously prosecute all such violators. A violator shall, upon conviction, forfeit to the city a penalty of $50.00 (fifty dollars) or the maximum allowed under ss.87.30(2) for each separate offense, together with a taxable cost of such action. Each day of continued violation shall constitute a separate offense. Every violation of this ordinance is a public nuisance and the creation may be enjoined and the maintenance may be abated by action at suit of the city, the state, or any citizen thereof pursuant to s. 87.30 of Wisconsin Statutes.
v. DEFINITIONS
Unless specifically defined, words and phrases in this ordinance shall have their common law meaning and shall be applied in accordance with their common usage. Words used in the present tense include the future, the singular number includes the plural and the plural number includes the singular. The word "should" is advisory, the word "may" is permissive, the words "shall" or "must" are mandatory and are not discretionary.
(1) A Zones – Those areas shown on the Official Floodplain Zoning Map which would be inundated by the regional or base flood. These areas may be numbered or unnumbered
A Zones. The A Zones may or may not be reflective of flood profiles, depending on the availability of data for a given area.
(2) AH Zone – See "Area of Shallow Flooding".
(3) AO Zone – See "Area of Shallow Flooding".
(4) Accessory Structure Or Use – A facility, structure, building or use which is accessory or incidental to the principal use of a property, structure or building.
(5) Alteration – An enhancement, upgrading or substantial change or modifications other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a structure.
(6) Area Of Shallow Flooding – A designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1.0 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flood may be evident. Such flooding is characterized by ponding or sheet flow.


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(7) Base Flood –The flood having a one percent chance of being equaled or exceeded in any given year, as published by FEMA as part of a FIS and depicted on a FIRM. Also called the one hundred year recurrence interval flood.
(8) Basement – Any enclosed area of a building having its floor sub-grade, i.e., below ground level, on all sides.
(9) Building – See "Structure".
(10) Bulkhead Line – A geographic line along a reach of navigable water that has been adopted by a municipal ordinance and approved by the Department pursuant to s. 30.11 of Wisconsin Statutes, and which allows limited filling between this bulkhead line and the original ordinary high water mark (OHWM), except where such filling is prohibited by the floodway provisions of this ordinance.
(11) Campground – Any parcel of land which is designed, maintained, intended or used for the purpose of providing sites for nonpermanent overnight use by 4 or more camping units, or which is advertised or represented as a camping area. (12) Camping Unit – Any portable device, no more than 400 square feet in area, used as a temporary shelter, including but not limited to a camping trailer, motor home, bus, van, pick-up truck, or tent that is fully licensed, if required, and ready for highway use.
(13) Certificate of Compliance – A certification that the construction and the use of land or a building, the elevation of fill or the lowest floor of a structure is in compliance with all of the provisions of this ordinance.
(14) Channel – A natural or artificial watercourse with definite bed and banks to confine and conduct normal flow of water.
(15) Crawlways or Crawl Space – An enclosed area below the first usable floor of a building, generally less than five feet in height, used for access to plumbing and electrical utilities.
(16) Deck – An unenclosed exterior structure that has no roof or sides, but has a permeable floor which allows the infiltration of precipitation.
(17) Department – The Wisconsin Department of Natural Resources.
(18) Development – Any artificial change to improved or unimproved real estate, including, but not limited to, the construction of buildings, structures or accessory structures; the construction of additions or alterations to buildings, structures or accessory structures; the repair of any damaged structure or the improvement or renovation of any structure, regardless of percentage of damage or improvement; the placement of buildings or structures; subdivision layout and site preparation; mining, dredging, filling, grading, paving, excavation or drilling operations; the storage, deposition or extraction of materials or equipment; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities.
(19) Dryland Access – A vehicular access route which is above the regional or base flood elevation and which connects land located in the floodplain to land outside the floodplain, such as a road with its surface above regional or base flood elevation and wide enough for wheeled rescue and relief vehicles.
(20) Encroachment – Any fill, structure, equipment, use or development in the floodway.
(21) Federal Emergency Management Agency (FEMA) – The federal agency that administers the National Flood Insurance Program.
(22) Flood Insurance Rate Map (FIRM) – A map of a community on which the Federal Insurance Administration has delineated both the floodplain and the risk premium zones applicable to the community. This map can only be amended by the Federal Emergency Management Agency.
(23) Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas caused by one of the following conditions:
- The overflow or rise of inland waters;
- The rapid accumulation or runoff of surface waters from any source;
- The inundation caused by waves or currents of water exceeding anticipated cyclical levels along the shore of Lake Michigan; or
- The sudden increase caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a seiche, or by some similarly unusual event.


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(24) Flood Frequency – The probability of a flood occurrence which is determined from statistical analyses. The frequency of a particular flood event is usually expressed as occurring, on the average once in a specified number of years or as a percent (%) chance of occurring in any given year.
(25) Floodfringe – That portion of the one hundred year recurrence interval floodplain outside of the floodway which is covered by flood waters during the regional or base flood and are usually represented or associated with standing or slow moving circulating water rather than straight flowing water.
(26) Flood Hazard Boundary Map – A map designating approximate flood hazard areas. Flood hazard areas are designated as unnumbered A-Zones and do not contain floodway lines or regional or base flood elevations. This map forms the basis for both the regulatory and insurance aspects of the National Flood Insurance Program (NFIP) until superseded by a Flood Insurance Study and a Flood Insurance Rate Map (FIRM).
(27) Flood Insurance Study (FIS) – A technical engineering examination, evaluation, and determination of the local flood hazard areas. It provides maps designating those areas affected by the regional or base flood and provides both flood insurance rate zones and base flood elevations and may provide floodway lines. The flood hazard areas are designated as numbered and unnumbered A-Zones. Flood Insurance Rate Maps, that accompany the FIS, form the basis for both the regulatory and the insurance aspects of the NFIP.
(28) Floodplain – In the City of Pewaukee, lakes and streams and adjoining land which has been or may be covered by flood water during a regional or base flood, and which is comprised of the floodway, flood fringe, the FEMA 'A zones' plus the WisDNR Flood Storage Districts (FSDs).
(29) Floodplain Island – A natural geologic land formation within the floodplain that is surrounded, but not covered, by floodwater during the regional or base flood.
(30) Floodplain Management – Policy and procedures to insure wise use of floodplains, including mapping and engineering, mitigation, education, and administration and enforcement of floodplain regulations.
(31) Flood Profile – A graph or a longitudinal profile line showing the relationship of the water surface elevation of a flood event to locations of land surface elevations along a stream or river.
(32) Floodproofing – Any combination of structural provisions, changes or adjustments to properties and structures, water and sanitary facilities and contents of buildings subject to flooding, for the purpose of reducing or eliminating flood damage.
(33) Flood Protection Elevation – An elevation of two feet of freeboard above the water surface profile elevation designated for the regional or base flood. (Also see: "Freeboard".)
(34) Flood Storage – Those floodplain areas where storage of floodwaters has been taken into account during analysis in reducing the regional or base flood discharge.
(35) Floodway – The channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the main flow of the regional or base flood discharge and represented or associated with fast moving water.
(36) Freeboard – A safety factor expressed in terms of a specified number of feet above a calculated flood level. Freeboard compensates for any factors that cause flood heights greater than those calculated, including ice jams, debris accumulation, wave action, obstruction of bridge openings and floodways, the effects of watershed urbanization, loss of flood storage areas due to development and aggregation of the river or stream bed.
(37) Habitable Structure – Any structure or portion thereof used or designed for human habitation.
(38) Hearing Notice – Publication or posting meeting the requirements of Ch. 985, Stats. For appeals, a Class 1 notice, published once at least one week (7 days) before the hearing, is required. For all zoning ordinances and amendments, a Class 2 notice, published twice, once each week consecutively, the last at least a week (7 days) before the hearing. Local ordinances or bylaws may require additional notice, exceeding these minimums.
(39) High Flood Damage Potential – Damage that could result from flooding that includes any danger to life or health or any significant economic loss to a structure or building and its contents.
(40) Highest Adjacent Grade – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.


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(41) Historic Structure – Any structure that is either:
 Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program, as determined by the Secretary of the Interior; or by the Secretary of the Interior in states without approved programs.
(42) Increase In Regional or Base Flood Height – A calculated upward rise in the regional or base flood elevation greater than 0.00 foot, based on a comparison of existing conditions and proposed conditions which is directly attributable to development in the floodplain but not attributable to manipulation of mathematical variables such as roughness factors, expansion and contraction coefficients and discharge.
(43) Land Use – Any use consisting of unimproved or improved real estate. (Also see "Development".)
(44) Lowest Adjacent Grade – Elevation of the lowest ground surface that touches any of the exterior walls of a building.
(45) Lowest Floor – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.
(46) Maintenance – The act or process of restoring to original soundness, including redecorating, refinishing, nonstructural repairs, or the replacement of existing fixtures, systems or equipment with equivalent fixtures, systems or structures.
(47) Manufactured Home – A structure transportable in one or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities. The term "manufactured home" includes a mobile home but does not include a "mobile recreational vehicle."
(48) Mobile/Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land, divided into two or more manufactured home lots for rent or sale.
(49) Mobile/Manufactured Home Park or Subdivision, Existing – A parcel of land, divided into two or more manufactured home lots for rent or sale, on which the construction of facilities for servicing the lots is completed before the effective date of this ordinance. At a minimum, this would include the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.
(50) Mobile/Manufactured Home Park, Expansion to Existing – The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed. This includes installation of utilities, construction of streets and either final site grading, or the pouring if concrete pads.
(51) Mobile Recreational Vehicle (RV) – A vehicle which is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled, carried or permanently towable by a licensed, light-duty vehicle, is licensed for highway use if registration is required and is designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel or seasonal use. Manufactured homes that are towed or carried onto a parcel of land, but do not remain capable of being towed or carried, including park model homes, do not fall within the definition of "mobile recreational vehicles."
(52) Model, Corrected Effective – A hydraulic engineering model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model.


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(53) Model, Duplicate Effective – A copy of the hydraulic analysis used in the effective FIS and referred to as the effective model.
(54) Model, Effective – The hydraulic engineering model that was used to produce the current effective Flood Insurance Study.
(55) Model, Existing (Pre-Project) – A modification of the Duplicate Effective Model or Corrected Effective Model to reflect any man made modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model.
(56) Model, Revised (Post-Project) – A modification of the Existing or Pre-Project Conditions Model, Duplicate Effective Model or Corrected Effective Model to reflect revised or post-project conditions.
(57) Municipality or Municipal – The city governmental agencies enacting, administering and enforcing this zoning ordinance.
(58) NAVD or North American Vertical Datum – Elevations referenced to mean sea level datum, 1988 adjustment.
(59) NGVD or National Geodetic Vertical Datum – Elevations referenced to mean sea level datum, 1929 adjustment.
(60) New Construction – For floodplain management purposes, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain zoning regulations adopted by the City and includes any subsequent improvements to such structures. For the purpose of determining flood insurance rates, it includes any structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.
(61) Nonconforming Structure – An existing lawful structure or building which is not in conformity with the dimensional or structural requirements of this ordinance for the area of the floodplain which it occupies. (For example, an existing residential structure in the flood fringe is a conforming use. However, if the lowest floor is lower than the flood protection elevation, the structure is nonconforming.)
(62) Nonconforming Use – An existing lawful use or accessory use of a structure or building which is not in conformity with the provisions of this ordinance for the area of the floodplain which it occupies. (Such as a residence in the floodway.)
(63) Obstruction to Flow – Any development which blocks the conveyance of floodwaters such that this development alone or together with any future development will cause an increase in regional or base flood height.
(64) Official Floodplain Zoning Map – That map, adopted and made part of this ordinance, as described in s. 1.5(2), which has been approved by the Department and FEMA.
(65) Open Space Use – Those uses having a relatively low flood damage potential and not involving structures.
(66) Ordinary Highwater Mark – The point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.
(67) Person – An individual, or group of individuals, corporation, partnership, association, municipality or state agency.
(68) Private Sewage System – A sewage treatment and disposal system serving one structure with a septic tank and soil absorption field located on the same parcel as the structure. It also means an alternative sewage system approved by the Department of Safety and Professional Services, including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure.
(69) Public Utilities – Those utilities using underground or overhead transmission lines such as electric, telephone and communication cables, as well as liquid distribution and collection systems such as water mains, sanitary sewers and storm sewers.


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(70) Reasonably Safe From Flooding – Means base flood waters will not inundate the land or damage structures to be removed from the floodplain and that any subsurface waters related to the base flood will not damage existing or proposed buildings.
(71) Regional Flood – A flood determined to be representative of large floods known to have occurred in Wisconsin. A regional flood is a flood with a one percent chance of being equaled or exceeded in any given year, and if depicted on the FIRM, the RFE is equivalent to the BFE. (See BASE FLOOD)
(72) Special Flood Hazard Areas (SFHA) – Represent all the land and water areas that are prone to flooding, including: lakes and streams, the designated floodway, the designated flood fringe, the FEMA 'A' zone, and the WisDNR Flood Storage Districts (FSDs).
(73) Start of Construction – The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond initial excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For an alteration, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
(74) Structure – Any manmade object with form, shape and utility, either permanently or temporarily attached to, placed upon or set into the ground, stream bed or lake bed, including, but not limited to, roofed and walled buildings, gas or liquid storage tanks, bridges, dams and culverts.
(75) Subdivision – Has the meaning given in s. 236.02(12) of Wisconsin Statutes.
(76) Substantial Damage – Damage of any origin sustained by a structure, whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the equalized assessed value of the structure before the damage occurred.
(77) Substantial Improvement – Any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the equalized assessed value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the work performed. The term does not, however, include either any project for the improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions; or any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.
(78) Unnecessary Hardship – Where special conditions affecting a particular property, which were not self-created, have made strict conformity with restrictions governing areas, setbacks, frontage, height or density unnecessarily burdensome or unreasonable in light of the purposes of the ordinance.
(79) Variance – An authorization by the board of adjustment or appeals for the construction or maintenance of a building or structure in a manner which is inconsistent with dimensional standards (not uses) contained in the floodplain zoning ordinance. (80) Violation – The failure of a structure or other development to be fully compliant with the floodplain zoning ordinance. A structure or other development without required permits, lowest floor elevation documentation, floodproofing certificates or required floodway encroachment calculations is presumed to be in violation until such time as that documentation is provided.
(81) Watershed – The entire region contributing runoff or surface water to a watercourse or body of water.
(82) Water Surface Profile – A graphical representation showing the elevation of the water surface of a watercourse for each position along a reach of river or stream at a certain flood flow. A water surface profile of the regional or base flood is used in regulating floodplain areas.
(83) Well – means an excavation opening in the ground made by digging, boring, drilling, driving or other methods, to obtain groundwater regardless of its intended use.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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CERTIFIED SURVEY MAP NO. 544, RECORDED MARCH 7, 1967 IN VOLUME 3 OF CERTIFIED SURVEY MAPS ON PAGES 276 TO 277 AS DOCUMENT NO. 679571, PART OF THE SOUTH 1/2 OF SECTION 1 AND THE NORTH 1/2 OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

TAX KEY NO. PWC 0868995

ADDRESS: W225 N4014 DUPLAINVILLE ROAD.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 2370-04-70**
**Parcel No. 1**
**Owner: Deborah J. Dollak**
**Interest: TLE**

**TEMPORARY LIMITED EASEMENT** for the right to construct a bridge and for slope grading, including for such purpose the right to operate the necessary equipment thereon and the right of ingress and egress as long as required for such public purpose, including the right to preserve, protect, remove, or plant thereon any vegetation that the highway authorities may deem necessary or desirable, in and to **all that land of the owner contained within the following described tract** being a part of CSM 544, located in the Northwest 1/4 of the Northeast 1/4 of Section 12, T7N, R19E, City of Pewaukee, Waukesha County, Wisconsin more fully described as follows:

Commencing at the North quarter corner of said Section 12;
Thence South 01°07'13" West, 230.05 feet along the West line of the Northeast quarter of said Section 12;
Thence North 63°21'30" East, 63.22 feet to the 2370-04-70 project reference line and being the Point of Beginning;
Thence continuing North 63°21'30" East, 40.47 feet to the northeasterly right-of way of Duplainville Rd;
Thence North 63°41'02" East, 6.55 feet;
Thence South 26°43'57 East, 130.32 feet;
Thence North 77°40'56" East, 3.10 feet;
Thence South 26°50'23" East, 48.68 feet;
Thence South 63°24'02" West, 5.00 feet to the said northeasterly right-of-way;
Thence continuing South 63°24'02" West, 45.53 feet to the said project reference line;
Thence North 26°35'58" West, 174.05 feet along said reference line to a curve to the right;
Thence along said curve 5.72 feet, having a 2150.00 feet radius and a cord bearing
North 26º31'24" West, 5.72 feet to the Point of Beginning.

**Excepting** those lands already conveyed or dedicated for Highway right-of-way purposes.

Containing 877 square feet more or less.

All TLE's expire at the completion of the construction project for which this instrument is given.

Subject to all other easements and restrictions, recorded and unrecorded.

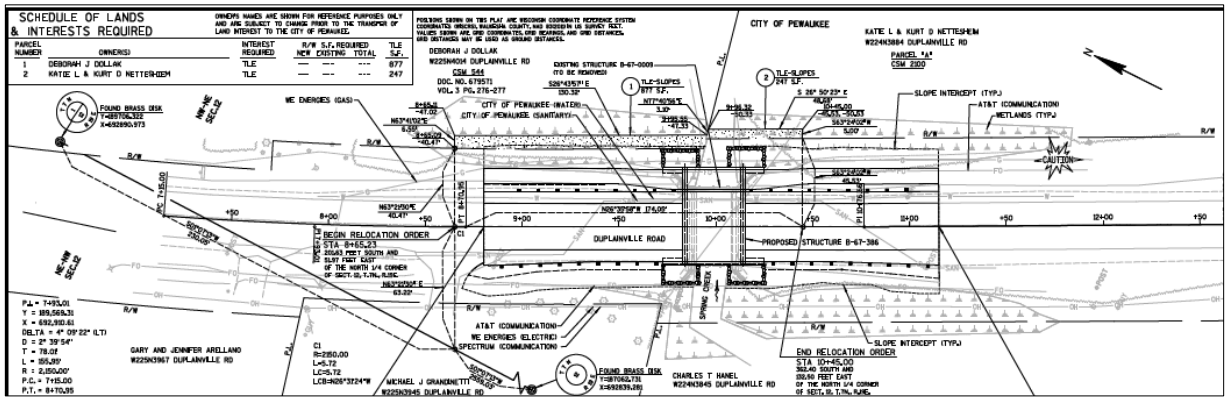

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**ADDENDUM F**

**ACQUISITION PLAT**


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## ACQUISITION PLAT



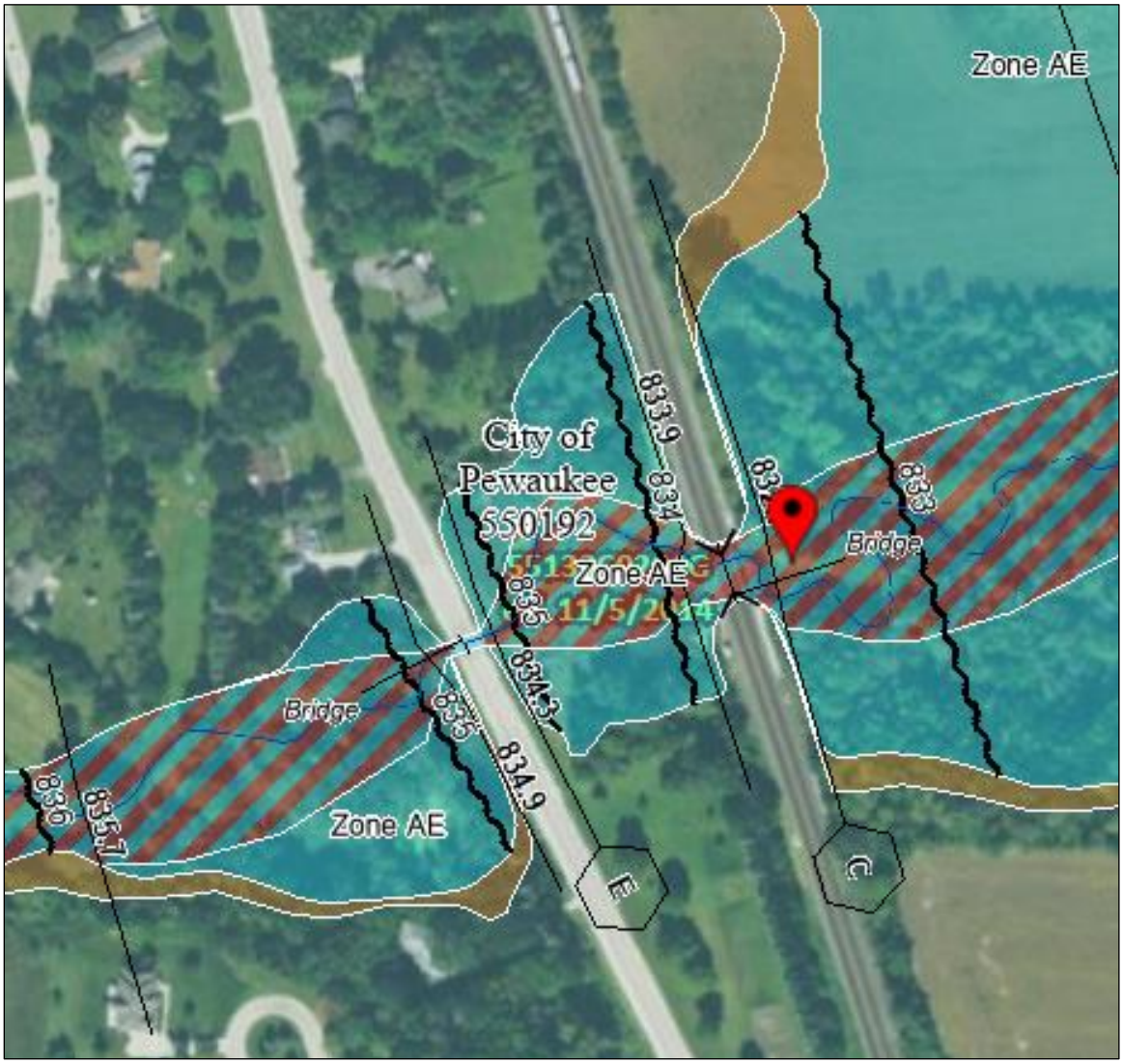


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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# ADDENDUM H
# QUALIFICATIONS


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W224N3884 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 3

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

March 2, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 3

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. According Public Records, the site contains approximately 3.5724-acres or 155,614-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W224N3884 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**SEVEN HUNDRED DOLLARS**

**($700)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $700 |
| **Total Damages (Rounded):** | $700 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$700** |
| **Total:** | **$700** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

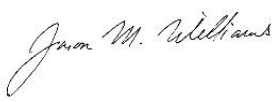
It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Jason Williams spoke with Kurt D. Nettesheim, owner, via telephone and invited him to accompany the appraisers on the inspection. Mr. Nettesheim declined but told Mr. Williams they can inspect unaccompanied. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $700.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Kurt D. and Katie L. Nettesheim |
| Property Address: | W224N3884 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin 53072 |
| Owner Address: | W224N3884 Duplainville Rd., City of Pewaukee, Waukesha, Wisconsin 53072 |
| Phone: | 262-510-1932 |
| Total Land Area: | 3.574-acres or 155,614-square feet |
| Building Improvements: | The subject is improved with a single-family residence |
| Assessor's Parcel Number: | PWC 0909999001 |
| Current Zoning: | Rs-2, Single-Family Residential, F-1, Floodplain, and LC, Lowland Conservancy Districts |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Residential Development |
| As Improved: | Single-Family Residence |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Permanent Limited Easement: | 786 square feet or 0.01804 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $700 |
| **Total Damages (Rounded):** | $700 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$700** |
| **Total:** | **$700** |


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owners of the subject property are Kurt D. and Katie L. Nettesheim. According to public records the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | March 2, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Permanent Limited Easement totaling 786-square feet or 0.01804-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

None noted.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 30 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a residential use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

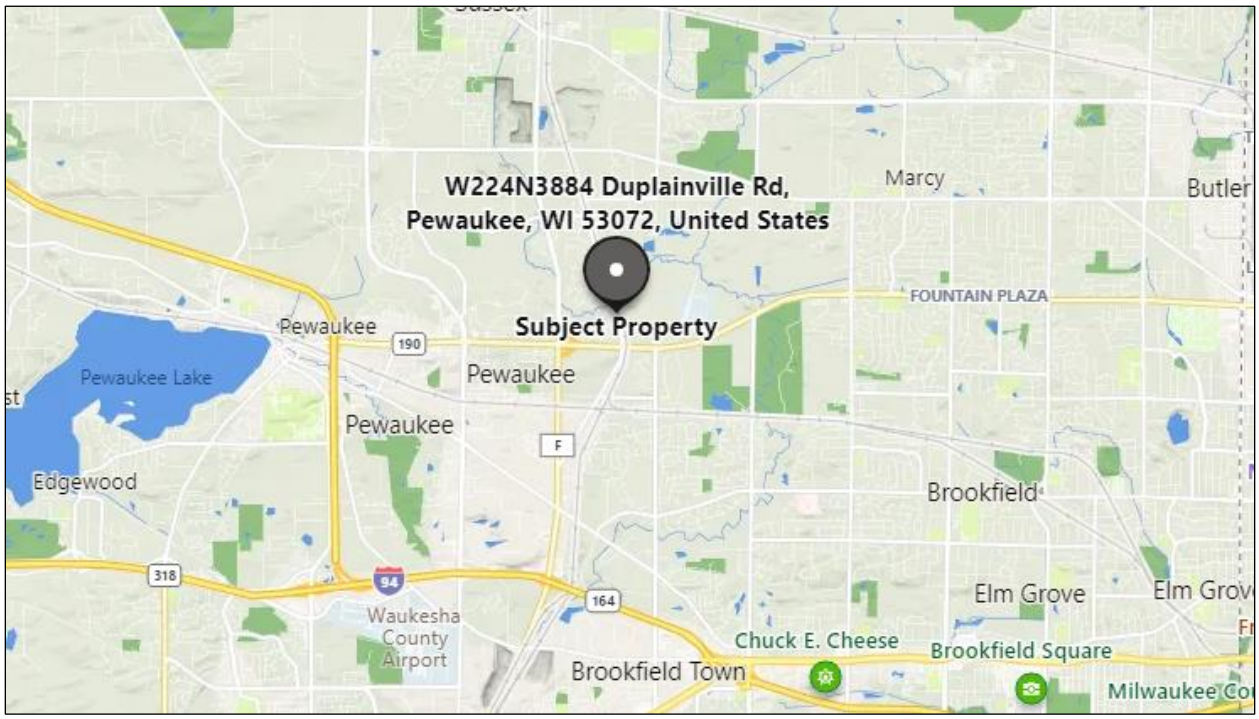

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.


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Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet.

### Shape and Frontage

The subject is irregular in shape with approximately 1,450 linear feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has an irregular shape and is generally level and at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available and connected to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

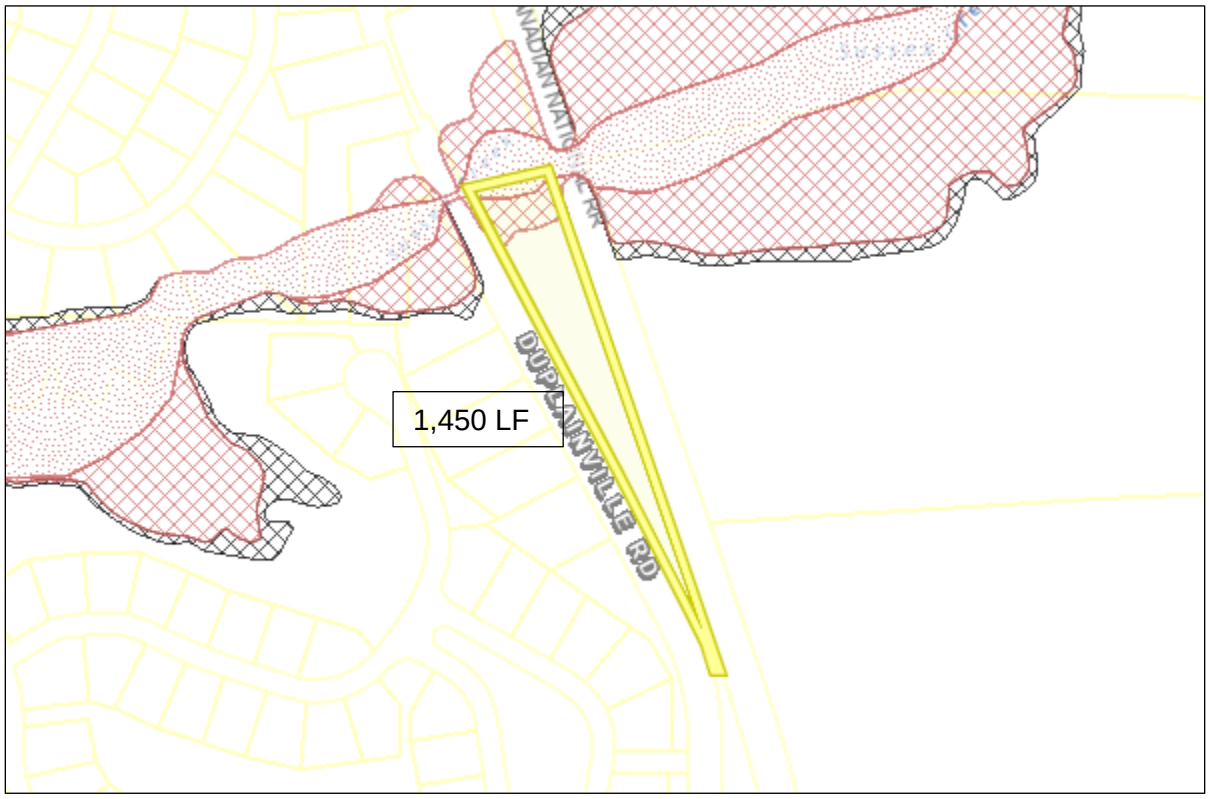
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within Zone X and Zone AE as indicated on FEMA Community Map Panel 55133CO204G dated November 5, 2014. According to the maps the single-family residence is located in Zone X while the project area is located in Zone AE.

FEMA Zone X: Areas determined to be outside the 500 year flood plain.

FEMA Zone AE: Areas subject to inundation by the 1-percent-annual-chance flood event.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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**Site Improvements**

The site is improved with a single-family residence. The improvements will not be impacted by the road project.

**Aerial Map**




**Larger Parcel**

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

**Conclusion**

The property is comprised of a single larger parcel containing 3.574-acres or 155,614-square feet. The site topography is generally level and at road grade. The subject is irregular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available and connected to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | Rs-2, Single-Family Residential District |
| Permitted Uses: | One single-family residence, foster homes, CBRFs, family day care, professional home office, hobby kennels |
| **Category** | **Zoning Requirement** |
| Front Setback: | 45-feet from right-of-way |
| Rear Setback: | 35-feet |
| Side Setback: | 25-feet |
| Floodplain Setback: | 75-feet |
| Wetland Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 220' at building |
| Driveway Limit: | 24-feet at right-of-way line and 28-feet at the roadway |
| Source: City of Pewaukee Zoning Code<br>Compiled By: Single Source, Inc. | |

In addition to the Rs-2 Single-Family Residential District, the subject property is zoned F-1, Flood Plain District and LC, Lowland Conservancy District.

Permitted uses in the F-1, Floodplain District include functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes and public utilities, streets/highways and bridges that comply with various subsections of the F-1 zoning classification.

Permitted uses in the LC, Lowland Conservancy District include Non-tilled agricultural uses when conducted in accordance with County Soil and Water Conservation District Standards, Fishing and hunting where allowed by other laws or ordinances. Harvesting of wild crops such as marsh hay, ferns, moss, berries, tree fruits, and tree seeds, Preservation of scenic, historic, native grassed prairies and scientific areas, Public fish hatcheries, Public and private open space areas, Sod farms, Stream bank and lakeshore protection, Sustained yield forestry, Wildlife preserves, and Public works.

The property is considered to be a legal and conforming use in the "before" and "after" condition. The subject property consists of 3.574 acres "before" and will contain 3.574 acres in the "after" condition. The minimum lot size per the Rs-2 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0909999001 | $136,200 | $109,100 | $245,300 | $2,990.25 |
| Equalized Market Value @ 100% | $138,900 | $111,300 | $250,200 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $2,990.25 includes a First Dollar Credit of $66.80. Review of public records indicate no special assessment for the subject property.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned Rs-2 Single-Family Residential District, F-1, Floodplain District, and LC, Lowland Conservancy District. The Rs-2 Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre. The subject property appears to comply with the current Rs-2 zoning standards.

The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA). The LC, Lowland Conservancy District is intended to be used to delineate those land and water areas that exhibit the physical characteristics of wetlands. The subject property appears to comply with both the current F-1 and LC zoning standards.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has an irregular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. Based on the subject's specific location and physical characteristics, it is our opinion that a residential use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics,


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it is our opinion that development of the site with a residential use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

**Conclusion: Highest and Best Use As Though Vacant**

The concluded highest and best use of the subject as though vacant is residential development.

## HIGHEST AND BEST USE AS IMPROVED

**Legal Permissibility**

The subject is a legal and conforming use as improved per the Rs-2 Single-Family Residential, F-1, Floodplain, and LC, Lowland Conservancy zoning code.

**Physical Possibility**

The layout and positioning of the improvements are functional for a single-family residence, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current single-family residence.

**Financial Feasibility**

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active residential market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

**Maximum Profitability**

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

**Conclusion: Highest and Best Use as Improved**

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as a single-family residence. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

**Conclusion: Highest and Best Use – Before Acquisition**

The concluded highest and best use of the subject before the acquisition is continued use as a single-family residence.


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**Conclusion: Highest and Best Use – After Acquisition**

The concluded highest and best use of the subject after the acquisition is continued use as a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 155,614-square feet or 3.574-acres in the "before" condition. The subject is improved with a single-family residence, in the "before" and "after" condition. Following the acquisition the subject site will remain at 155,614-square feet or 3.574-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat 21-01-4.02 recorded as Document No. 4651917 on February 15, 2022 are as shown below:

| | | |
|---|---|---|
| Subject Before Acquisition: | 155,614 SF | 3.574-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Permanent Limited Easement: | 786 | 0.01804-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 155,614 SF | 3.574-acres |

**Acquired Parcel**

None.

**Permanent Limited Easement**

One Permanent Limited Easement of 0.01804-acres or approximately 786-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.02 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

**Site Improvements**

There are no site improvements in the Permanent Limited Easement. There are deciduous brush, shrubs and trees located in the Permanent Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

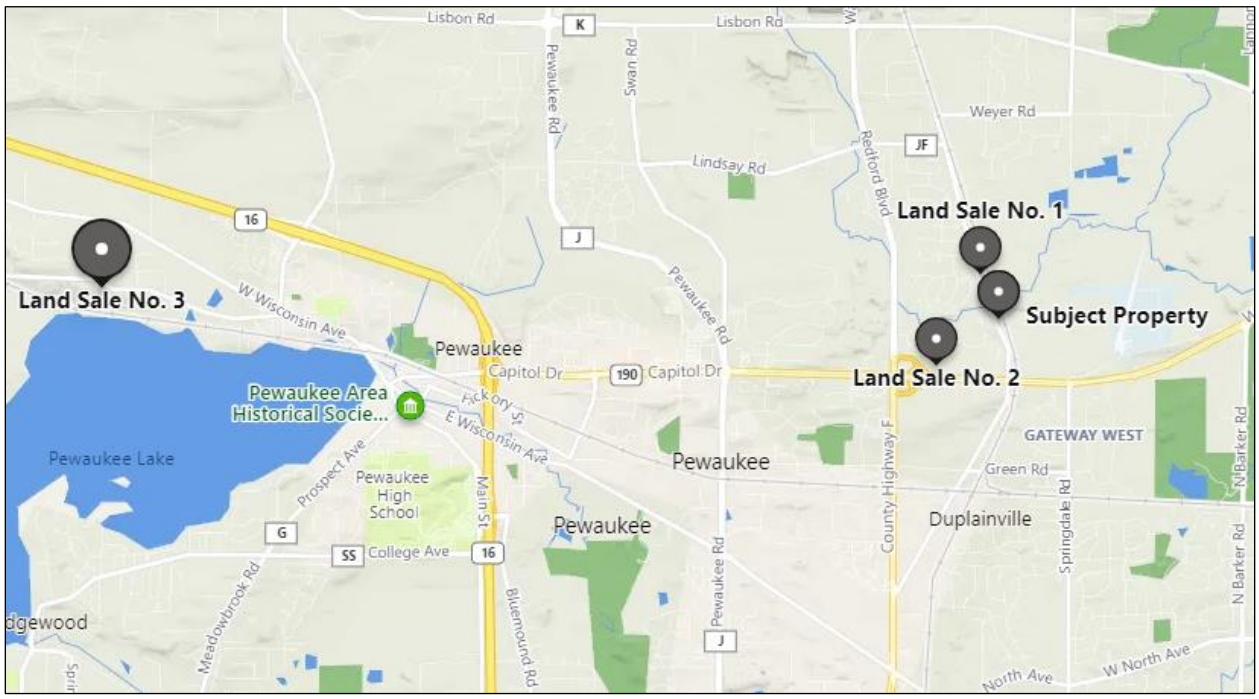
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




### ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $1.46 to $5.44 per square foot of land area. The primary differences between the comparable sales and the subject include utilities, physical characteristics and size of


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the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.

**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W224N3884 Duplainville Rd. Pewaukee, WI | -- | 155,614 | 3.5724 | Rs-2, F-1, LC | -- | -- | |
| 1 | Lot 1 Duplainville Road Pewaukee, WI | Feb-22 | 35,954 | 0.8254 | Rs-3 | $52,500 | $1.46 | $63,606 |
| 2 | Lot 14 Wyndemere Court Pewaukee, WI | Oct-21 | 23,893 | 0.5485 | Rs-5 | $130,000 | $5.44 | $237,010 |
| 3 | Lot 2 Glacier Road Pewaukee, WI | Sep-21 | 91,929 | 2.1104 | Rs-3, UC | $300,000 | $3.26 | $142,153 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation. All sales are less than one year from the date of value and do not require adjustment.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available. Sale Nos. 1 and 3 have sewer service available but not water and require an upward adjustment. Sale No. 2 has both sewer and water available therefore no adjustment is required.

**Size**

The subject site has a size of approximately 3.574-acres or 155,614-square feet of land area. The comparable sales range from 23,893-square feet to 91,929-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale Nos. 1, 2, and 3 are deemed smaller in size compared to the subject site and require varying degrees of downward adjustment.


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**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. Sale Nos. 1 and 3 are deemed similar in location to the subject site and require no adjustment. Sale No. 2 is located in a pre-planned subdivision and is deemed to have superior location compared to the subject site and requires a downward adjustment.

**Access/Visibility**

The subject property has average access from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale Nos. 1 and 2 are deemed similar in access to the subject site and require no adjustment. Sale No. 3 has below average access because of narrow road width, minimal roadway shoulder and the access point to the site is located at the apex of a curve in the roadway. Therefore, in our opinion an upward adjustment is required.

**Physical Features**

The subject is irregular in shape with generally level topography and at road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system. The northern portion of the subject site is located in a floodplain.

Sale No. 1 abuts the Canadian Pacific rail system and has similar physical features to the subject site, but has a rectangular shape, is not located in a floodplain and requires a downward adjustment. Sale No. 2 does not abut a rail system, has rectangular shape, is not located in a floodplain, which are considered superior features and requires a downward adjustment. Sale No. 3 does not abut a rail system and is rectangular in shape, but has a view of Pewaukee Lake, therefore in our opinion a net negative adjustment is required.

**Zoning and Use**

The subject property is zoned Rs-2, Single-Family Residential District which allows residential uses, F-1, Floodplain District which allows culverts and public utilities, and LC, Lowland Conservancy which allows public works. Sale Nos. 1 and 2 do not have additional zoning. Sale No. 3 has Upland Conservancy but in our opinion does not require adjustment. All sales have similar residential zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 |
|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $52,500 | | $130,000 | | $300,000 |
| Date of Sale | | -- | Feb-22 | | Oct-21 | | Sep-21 |
| Net Site Size (SF) | | 155,614 | 35,954 | | 23,893 | | 91,929 |
| Price/SF | | -- | $ 1.46 | | $ 5.44 | | $ 3.26 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Time/Market Conditions | | | 0.00% | | 0.00% | | 0.00% |
| | | | $ - | | $ - | | $ - |
| Current CE Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| DIRECT ADJUSTMENTS | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 10.0% | | 0.0% | | 10.0% |
| | | | $ 0.15 | | $ - | | $ 0.33 |
| Total Direct Adjustments | | | $ 0.15 | | $ - | | $ 0.33 |
| Adjusted CE Sale Price/SF | | | $ 1.61 | | $ 5.44 | | $ 3.59 |
| PERCENTAGE ADJUSTMENTS | | | | | | | |
| Size (SF) | 155,614 | | 35,954 | | 23,893 | | 91,929 |
| | | | Smaller | | Smaller | | Smaller |
| | | | -20% | | -20% | | -10% |
| | | | $ (0.32) | | $ (1.09) | | $ (0.36) |
| Market Area/Location | Pewaukee | | Similar | | Superior | | Similar |
| | | | 0% | | -20% | | 0% |
| | | | $ - | | $ (1.09) | | $ - |
| Access/Visibility | Average/Average | | Similar | | Similar | | Inferior |
| | | | 0% | | 0% | | 5% |
| | | | - | | - | | 0.18 |
| Other Physical Features | Irregular | | Superior | | Superior | | Superior |
| | | | -15% | | -20% | | -10% |
| | | | (0.24) | | (1.09) | | (0.36) |
| Zoning | Rs-2, F-1, LC | | Rs-3 | | Rs-5 | | Rs-3, UC |
| | | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ (0.56) | | $ (3.26) | | $ (0.54) |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **1.04** | | **2.18** | | **3.05** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 2.09** | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$1.60** | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **155,614** | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 248,982** | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 249,000** | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $1.04 to $3.05 per square foot, with an average of $2.09 per square foot. Primary weight was placed on Sale No. 1 because it is located on Duplainville Road near the subject site and was a very recent sale. Secondary support was provided from Sale Nos. 2 and 3. Based on this analysis, the subject property is estimated to have a unit value at $1.60 per square foot, between all three sales, which are all deemed similar to the subject site.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 155,614 | X | $1.60 | = | $248,982 |
| **Value Indication (Rounded):** | | | | **$249,000** |

**Before Value**

The total "before" value is $360,300 ($249,000 - land + $111,300 - improvements, per assessment, rounded).

**Valuation of Permanent Limited Easement**

One Permanent Limited Easement of 0.01804-acres or approximately 786-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.02 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

It is our opinion that the Permanent Limited Easement area has some, but limited utility to the owner after the acquisition due to the presence of the culvert. The easement is located in the building setback area, hence, an area where improvements are not allowed to be built. The damages for Permanent Limited Easement are estimated at 50 percent of fee value of $1.60 per square foot ($1.60/SF X 50%), or $0.80 per square foot due to the loss of utility to the subject property in the "after" condition.

**Acquired Land Value Conclusion – Permanent Limited Easement**

**Acquired Land Value**
**Permanent Limited Easement**

| SF | X | Value/SF | = | Value |
|---|---|---|---|---|
| 786 | X | $0.80 | = | $629 |
| **Land Value Indication (Rounded):** | | | | **$700** |


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**Valuation of Site Improvements**

There are no site improvements in the Permanent Limited Easement. There are no site improvements in the Permanent Limited Easement. There are deciduous brush, shrubs and trees located in the Permanent Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $360,300 ($249,000 - land + $111,300 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $700 |
| **Total Damages (Rounded):** | $700 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$700** |
| **Total:** | **$700** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT PROPERTY LOOKING EAST**



**PLE LOOKING EAST**


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**PLE LOOKING SOUTH**



**PLE LOOKING NORTH**


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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**LAND SALE NO. 1**



**Property Identification**

| | |
|---|---|
| Location: | Lot 1 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.8254-acres or 35,955-square feet |
| Zoning: | Rs-3 Single-Family Residential District |
| Topography: | Generally level |
| Utilities: | Sewer available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0868996001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 11, 2022 |
| Sale Price: | $52,500 |
| Sale Price/SF: | $1.46 |
| Sale Price/Acre: | $63,606 |
| Grantor: | H&F Properties, LLC |
| Grantee: | Tyler Morgan |
| Document No.: | 4651813 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor Anthony Kersten of Cherry Home Realty – listing agent, Sarah Keily of Shorewest – selling agent |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 1 of Certified Survey Map No. 2514, recorded in Waukesha County Register of Deeds on February 25, 1976,in Volume 18 of Certified Survey Maps, on Pages 173, 174and 175, as Document No. 941058, part of the Southwest 1/4of the Southeast 1/4, and the Southeast 1/4 of the Southwest1/4 of Section 1, Township 7 North, Range 19 East, in the City of Pewaukee, County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the east side of Duplainville Road near the subject site and just north of Capitol Drive and south of Weyer Road. The property has average access and visibility with generally level topography. The property is zoned Rs-3 and allows for single-family residential uses. Sewer service is available not water. The property was listed for sale twice in the past two years. The first listing was March 20, 2020 for $65,000, which expired after 184 days. The second listing began February 18, 2021 for an asking price of $65,000. Days on Market (DOM) reached 329 days before the sale at $52,500. Based on a discussions with the listing and selling agents the buyers intend to build a single-family house. The listing agent indicated that the sale price was below the list price because the buyer will need to extend water service from the west side of Duplainville Road to the east side where the property is located. The sale is located on the project road.

**Parcel Map**





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**LAND SALE NO. 2**



**Property Identification**

| | |
|---|---|
| Location: | Lot 14 Wyndemere Court<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.5485-acres or 23,893-square feet |
| Zoning: | Rs-5 Single-Family Residential District |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0910071 |

**Sale Data**

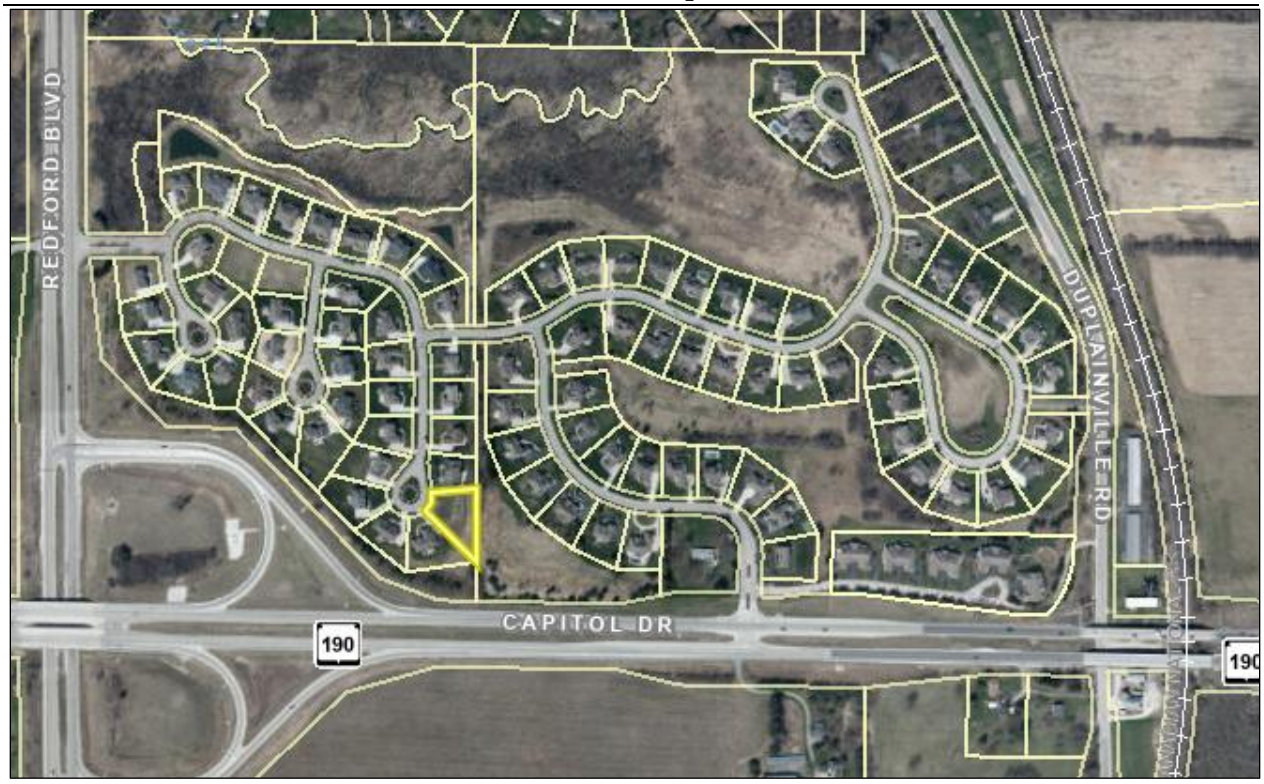
| | |
|---|---|
| Date of Sale: | October 29, 2021 |
| Sale Price: | $130,000 |
| Sale Price/SF: | $5.44 |
| Sale Price/Acre: | $237,010 |
| Grantor: | D&B Mierow, LLC |
| Grantee: | Denali Realty Group, LLC |
| Document No.: | 4631192 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot Fourteen (14), together with an undivided interest inOutlots 1, 2, 3, 4 and 5, all in Wyndemere, being aSubdivision of a part of the Northwest One-quarter (1/4) andSouthwest One-quarter (1/4) of the Northwest One-quarter(1/4) of Section Twelve (12), Township Seven (7) North,Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, and an affidavit of Correction recorded on June 8, 2005, as Document No. 3283892. |

**Comments:**


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The parcel is located along the east side of Wyndemere Court, just west of Duplainville Road, east of Redford Boulevard, and north of Capitol Drive. The property has average access and visibility with generally level topography. The property is zoned Rs-5 and allows for single-family residential uses. Water and sewer service are available.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | Lot 2 Glacier Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 2.1104-acres or 91,929-square feet |
| Zoning: | Rs-3 Single-Family Residential District/UC, Upland Conservancy |
| Topography: | Generally Level, downwards sloping to south, wooded |
| Utilities: | Sewer Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0890999006 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | September 30, 2021 |
| Sale Price: | $300,000 |
| Sale Price/SF: | $3.26 |
| Sale Price/Acre: | $142,153 |
| Grantor: | Gary R. Klatt |
| Grantee: | Andrew and Candace Johnson |
| Document No.: | 4624166 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot 2 and Outlot 2 of Certified Survey Map No. 11922, being a redivision of all of Lots 1, 2 and 3 of Certified Survey Map No.8822 being a division of Lot 2 of Certified Survey Map No.4581 being part of the Southeast 1/4 of the Southwest 1/4Section 6 and the Northeast 1/4 of the Northwest 1/4 of Section 7, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on October 15, 2019 in Book 120, Pages 301-305, as Document No. 4428613. |

**Comments:**


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The parcel is located along the south side of Glacier Road, just east of North Shore Drive and south of Hwy 16. The property has below-average access and visibility with generally level topography with downward sloping to the south. The property is bifurcated with a non-contiguous area located on Pewaukee Lake. Parcel 999011 and a rail system separate these two areas of the parcel. The property is zoned Rs-3 and Upland Conservancy and allows for single-family residential uses. Sewer service is available not water. The property was marketed as having a view of Pewaukee Lake.

**Parcel Map**





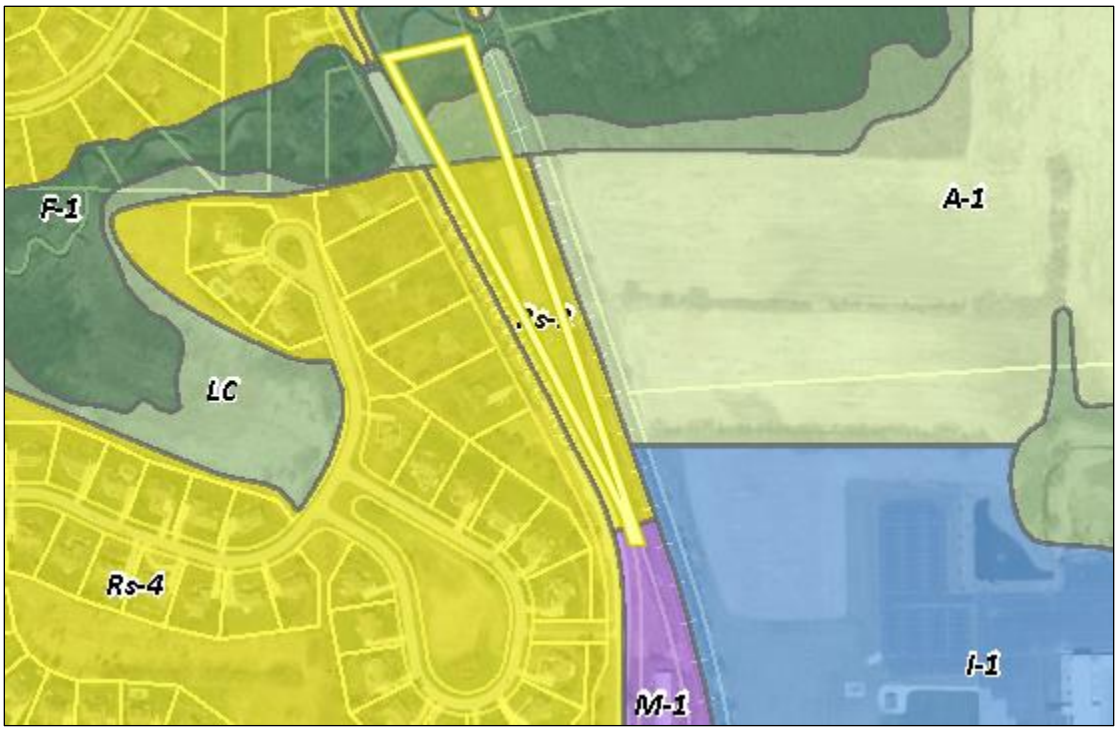
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**ADDENDUM D**

**ZONING MAP & CODE**


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 30 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0406 Rs-2, SINGLE-FAMILY RESIDENTIAL DISTRICT**
The Rs-2, Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre.
a. Permitted Principal Uses
(1) One Single-family dwelling with attached or detached garages as defined in section 17.1402.
(2) Foster homes and community living arrangements, including CBRFs, as set forth in Wisconsin Statutes.
(3) Family day-care home as set forth in Section 66.1017 of Wisconsin Statutes.
b. Permitted Accessory Uses
(1) Home occupations and professional home offices as defined herein.
(2) Yard and gardening equipment storage structures not exceeding 192 square feet in area. (Also see section 17.0700).
(3) Hobby Kennels. (Cr. 13-09)
c. Repealed 13-09
d. Lot Area and Width
(1) Lots shall have a minimum area of 2.0 net acres.
(2) Lots shall have a width of not less than 220 feet at the building setback line.
e. Building Height and Size
(1) No principal building or parts of a principal building shall exceed 35 feet in height.
(2) No accessory structure shall be more than 18 feet in height.
(3) The minimum floor area of one or two-story dwelling unit shall be as follows:


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| Number of Bedrooms Per Dwelling | Unit Minimum | Total Area Minimum First Floor Area |
|---|---|---|
| One | 1,200 square feet | 1,200 square feet |
| Two | 1,300 square feet | 1,200 square feet |
| Three | 1,500 square feet | 1,200 square feet |
| Four or More | 1,700 square feet | 1,200 square feet |

No bedroom shall be less than 100 square feet in area exclusive of closets.
(4) The sum total of the first floor area of the principal building and all accessory buildings shall not exceed 6.0 percent of the lot area.
f. Setback and Yards
(1) There shall be a minimum building (or street) setback of 45 feet from the right-of-way of all public streets, roads, or highways.
(2) There shall be a side yard on each side of all structures not less than 25 feet in width.
(3) There shall be a rear yard of not less than 35 feet.
(4) There shall be a minimum building setback of 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland.
(Also see sub-section 17.0435)
(5) There shall be a minimum set back of 100 feet from any abutting property for any building primarily used for housing or sheltering animals.
g. Parking Space
See Section 17.0600
h. Minimum Utility Service
Electricity, approved private water supply, and an approved on-site soil absorption sanitary sewage disposal system. All on-site soil absorption sanitary disposal systems must be approved by the Waukesha County Health and Human Services Department prior to installation. Note: If public sanitary sewerage and/or water supply facilities are available to the property, no on-site sewage disposal system or private water supply system will be permitted to be constructed.

**CITY OF PEWAUKEE MUNICIPAL CODE 91 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0435 F-1, FLOODPLAIN DISTRICT. (Rep. & Rec. 08-12, 12-12, 14-14)**
The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. Also included within the F-1, Floodplain are those areas adjacent to the base flood designated by the Wisconsin Department of Natural Resources (WisDNR) as Flood Storage Districts (FSDs). The proper regulation of these areas will serve to maintain and improve water quality, prevent flood damage, protect wildlife habitat, and prohibit the location of walled structures, as defined herein, on lands, which are generally not suitable for such use due to possible flooding.
a. FINDING OF FACT
Uncontrolled development and use of the floodplains and rivers of the City would impair the public health, safety, convenience, general welfare and tax base.
b. STATEMENT OF PURPOSE


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This ordinance is intended to regulate floodplain development to:
(1) Protect life, health and property;
(2) Minimize expenditures of public funds for flood control projects;
(3) Minimize rescue and relief efforts undertaken at the expense of the taxpayers;
(4) Minimize business interruptions and other economic disruptions;
(5) Minimize damage to public facilities in the floodplain;
(6) Eliminate the occurrence of future flood blight areas in the floodplain;
(7) Eliminate the victimization of unwary land and homebuyers;
(8) Prevent increases in flood heights that could increase flood damage and result in conflicts between property owners; and
(9) Eliminate development in a floodplain, recognizing that there may be existing developed land lying within the delineated F-1, Floodplain District and there may be the need to locate public utilities or streets within the F-1, Floodplain District.
c. TITLE
This sub-section of the City Zoning Ordinance shall be commonly known as the 'Floodplain Ordinance' for the City of Pewaukee, Wisconsin.
d. STATUTORY AUTHORIZATION
This sub-section of the City Zoning Ordinance is adopted pursuant to the authorization in Sections 62.23 and 87.30 of Wisconsin Statutes as well as Ch. NR 116 of the Wisconsin Administrative Code which is included as Appendix 5 in this zoning ordinance.
e. GENERAL PROVISIONS
(1) AREAS TO BE REGULATED
This ordinance regulates all areas that would be covered by the regional flood or base flood as shown on the Flood Insurance Rate Map (FIRM) or other maps approved by DNR such as the WisDNR Flood Storage Districts (FSDs). Base flood elevations (BFE) are derived from the flood profiles in the Flood Insurance Study (FIS) and are shown as AE, A1-30, and AH Zones on the FIRM. Other regulatory zones are displayed as A and AO zones. Regional Flood Elevations (RFE) may be derived from other studies. If more than one map or revision is referenced, the most restrictive information shall apply.
(2) OFFICIAL MAPS & REVISIONS
The boundaries of the SFHA are designated on the maps listed in (3) below. Any change to the BFE or any changes to the boundaries of the floodplain or floodway in the FIS or on the FIRM must be reviewed and approved by the DNR and FEMA through the Letter of Map Change process (see 17.0435t Amendments) before it is effective. No changes to RFE's on non-FEMA maps shall be effective until approved by the DNR. These maps, profiles and revisions are on file in the City Planning, Public Works or Building Inspection offices at Pewaukee City Hall and may also be available in the Waukesha County Park and Land Use Department offices in the Courthouse. If more than one map or revision is referenced for the same area, the most restrictive information shall apply.
(3) OFFICIAL MAPS AND PROFILES: Based on the FIS:
Official FIRMs and Profiles Encompassing the City of Pewaukee are FIRM panel numbers:55133C0181G, 55133C0182G, 55133C0183G, 55133C0184G, 55133C0191G, 5133C0192G, 55133C0201G, 55133C0202G, 55133C0203G, 55133C0204G, 55133C0206G, 55133C0208G, 55133C0211G, 55133C0212G, 55133C0213G, 55133C0214G, 55133C0216G dated November 5, 2014; with corresponding profiles that are based on the Flood Insurance Study (FIS) dated February 9, 2014, and numbered: 55133CV001C, 55133CV002C, 55133CV003C. (Approved by: WisDNR and/or FEMA)
(4) MAPS BASED ON OTHER STUDIES:
Flood Storage Map. Also included within the City's F-1, Floodplain District, are the flood storage districts as depicted on Waukesha County Wisconsin Flood Storage District Map Panels 3, 5 and 6, based on a WisDNR study dated November 5, 2014. Prepared and Approved by WisDNR.
(5). ESTABLISHMENT OF FLOODPLAIN ZONING DISTRICT
The F-1, Floodplain as defined in this City Zoning Ordinance includes:
All land and water area lying within the boundary of the SFHA as defined above plus any FSD.
(6) LOCATING FLOODPLAIN BOUNDARIES


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Discrepancies between boundaries on the official floodplain zoning map and actual field conditions shall be resolved using the criteria in (a) or (b) below. If a significant difference exists, the map shall be amended according to section 17.0435t Amendments. The zoning administrator can rely on a boundary derived from a profile elevation to grant or deny a land use permit, whether or not a map amendment is required. The zoning administrator shall be responsible for documenting actual pre-development field conditions and the basis upon which the district boundary was determined and for initiating any map amendments required under this section. Disputes between the zoning administrator and an applicant over the district boundary line shall be settled according to section 17.1007 and the criteria in (a) and
(b) below. Where the flood profiles are based on established base flood elevations from a
FIRM, FEMA must approve any map amendment or revision pursuant to section 't' Amendments of this sub-section.
(a) If flood profiles exist, the map scale and the profile elevations shall determine the district boundary. The regional or base flood elevations shall govern if there are any discrepancies.
(b) Where flood profiles do not exist for projects, the location of the boundary shall be determined by the map scale.
(7) REMOVAL OF LANDS FROM FLOODPLAIN
Compliance with the provisions of this ordinance shall not be grounds for removing land from the floodplain unless it is filled at least two feet above the regional or base flood elevation, the fill is contiguous to land outside the floodplain, and the map is amended pursuant to section 't' Amendments of this sub-section.
In addition, no floodplain may be filled and no walled structure built within the SFHA or FSDs with the exception of the construction of public utility and transportation facilities required by a unit/agency of government, or an approved structure requiring water frontage which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District unless:
(a) Said land has been previously filled prior to the effective date of the adoption on this amendment so that the elevation of the lowest floor (including basement) of any existing or proposed walled structure or building is at least two feet above the base flood elevation;
(b) The proposed filled land does not form an island and can be accessed from other surrounding lands without entering the F-1, Floodplain District;
(c) There is an area of land outside the F-1, Floodplain District but adjacent to and on the same property as the proposed filled land equal to at least four (4) times the areal extent and volume of the proposed filled area that is added to the F-1, Floodplain District based on plans approved by the City Plan Commission;
(d) The height of the downstream base flood is not increased by proposed fill;
(e) The floodplain boundaries shown on all official maps are amended pursuant to section 'n' of this sub-section; and
(f) A study is prepared and certified by a state registered professional engineer, establishing that:
i. The fill, lowest floor and floodproofing elevation shall have no effect upon the base flood elevation either upstream or downstream and are in compliance with this ordinance; or
ii. The fill, lowest floor and floodproofing elevations may have the effect of raising the base flood elevation either upstream or downstream if otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Conditional Letter of Map
Revision (CLOMR) prior to issuance of any local permit(s); or
iii. The fill, lowest floor and floodproofing elevations may have the effect of lowering the base flood elevation either upstream or downstream and are otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Letter of Map
Change (LOMC) prior to issuance of any local permit(s). Please also see subsection17.1108b and Appendix 5.
(8) COMPLIANCE
Any development or use within the areas regulated by this ordinance shall be in compliance with the terms of this ordinance, and other applicable local, state, and federal regulations.
(9) MUNICIPALITIES AND STATE AGENCIES REGULATED
Unless specifically exempted by law, all cities, villages, towns, and counties are required to comply with this ordinance and obtain all necessary permits. State agencies are required to comply if s.13.48(13) of Wisconsin


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Statutes applies. The construction, reconstruction, maintenance and repair of state highways and bridges by the Wisconsin Department of Transportation is exempt when s.30.2022 of Wisconsin Statutes applies.
(10) ABROGATION AND GREATER RESTRICTIONS
(a) This ordinance supersedes all the provisions of any City ordinance enacted under
s. 62.23 or s.87.30 of Wisconsin Statutes., which relate to floodplains. A more restrictive ordinance shall continue in full force and effect to the extent of the greater restrictions, but not otherwise.
(b) This ordinance is not intended to repeal, abrogate or impair any existing deed restrictions, covenants or easements. If this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.
(11) INTERPRETATION
In their interpretation and application, the provisions of this ordinance are the minimum requirements liberally construed in favor of the City and are not a limitation on or repeal of any other powers granted by the Wisconsin Statutes. If a provision of this ordinance or ch. NR 116, Wis. Adm. Code is unclear, the provision shall be interpreted in light of the standards in effect on the date of the adoption of this ordinance or in effect on the date of the most recent text amendment to this ordinance.
(12) WARNING AND DISCLAIMER OF LIABILITY
The flood protection standards in this ordinance are based on engineering experience and scientific research related to a 100 year recurrence interval flood event (one percent change in any year). Larger floods may occur or the flood height may be increased by man-made or natural causes. This ordinance does not imply or guarantee that non-floodplain areas or permitted floodplain uses will be free from flooding and flood damages. This ordinance does not create liability on the part of, or a cause of action against, the city or any officer or employee thereof for any flood damage that may result from reliance on this ordinance.
(13) SEVERABILITY
Should any portion of this ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected.
(14) ANNEXED AREAS
The Waukesha County floodplain zoning provisions in effect on the date of annexation of town lands shall remain in effect and shall be enforced by the city for all annexed areas until the city adopts and enforces an ordinance which meets the requirements of ch. NR 116, Wis. Adm. Code and 44 CFR 59-72, National Flood Insurance Program (NFIP). These annexed lands are described on the city's official zoning map. County floodplain zoning provisions are incorporated by reference for the purpose of administering this section and are on file in the office of the city zoning administrator. All plats or maps of annexation shall show the regional or base flood elevation and the floodway location.

f. GENERAL STANDARDS APPLICABLE TO ALL FLOODPLAIN DISTRICTS (Also see section 17.0200 of this ordinance)
The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a base flood floodplain as defined herein except as set forth in sections 'k(3)' and 'l(2)' of this sub-section, and subsection 17.0436. All new construction and permitted structural improvements to existing buildings/structures within a floodplain shall be designed or modified so as to adequately anchor such structure or building to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads; be constructed with materials resistant to flood damage; be constructed by methods and practices that minimize flood damages; and be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. In addition to the requirements of Chapter 18 (Land Division Ordinance) of City Codes and Ordinances, subdivision of land shall be reviewed for compliance with the above standards and no newly created building parcel less than ten (10) acres in size shall be located within a base flood floodplain. (see section 'l (2)' of this sub-section). Adequate drainage shall be provided to reduce exposure to flood hazards and all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damages. All proposed land development plans, including land divisions and


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manufactured mobile home parks shall include BFE data for any land division or development that meets the definition within this zoning ordinance or Chapter 18 of the City
Codes and Ordinances. (See www.cityofpewaukee.us)
g. HYDRAULIC AND HYDROLOGIC ANALYSES
(1) No building or development shall:
(a) Obstruct natural storm water flow, defined as development which blocks the conveyance of floodwaters by itself or with other development, causing any increase in the regional or base flood height; or
(b) Cause any increase in the regional or base flood height due to floodplain storage area lost.
(2) The zoning administrator shall deny permits if it is determined the proposed development will obstruct flow or cause any increase in the regional or base flood height, based on the officially adopted FIRM or other adopted map, unless the provisions of section 't' Amendments of this sub-section are met.
h. WATERCOURSE ALTERATIONS
No land use permit to alter or relocate a watercourse in a mapped floodplain shall be issued until the local official has notified in writing all adjacent municipalities, the WisDNR (Department) and FEMA regional offices, and required the applicant to secure all necessary state and federal permits. The standards of section 'g' of this sub-section must be met and the flood carrying capacity of any altered or relocated watercourse shall be maintained. As soon as is practicable, but not later than six months after the date of the watercourse alteration or relocation and pursuant to section 't' Amendments of this sub-section, the City shall apply for a Letter of Map Revision (LOMR) from FEMA. Any such alterations must be reviewed and approved by FEMA and the WisDNR through the LOMC process.
i. CHAPTER 30, 31of WISCONSIN STATUTES DEVELOPMENT
Approved development which requires a permit from the Department, under chs. 30 and 31 of Wisconsin Statutes, such as docks, piers, wharves, bridges, utilities, public streets/highways, culverts, dams and navigational aids, may be allowed if the necessary permits are obtained and any amendments to the floodplain zoning ordinance are made according to section 't' Amendments of this sub-section.
j. PUBLIC OR PRIVATE CAMPGROUNDS
Public or private campgrounds, as defined herein, shall not be located within the F-1,
Floodplain District.
k. PERMITTED USES IN THE F-1, FLOODPLAIN DISTRICT
The following open space uses are allowed in the F-1, Floodplain District if they are not prohibited by any other ordinance; they meet the standards in sections 'l' and 'm' of this sub-section; and, all permits or certificates have been issued according to section 'p(1)' of this sub-section.
(1) Non-structural agricultural uses, such as: general farming, outdoor plant nurseries, horticulture, viticulture and wild crop harvesting.
(2) Non-structural industrial and commercial uses, such as loading areas, parking areas and airport landing strips.
(3) Non-structural recreational uses, such as golf courses, tennis courts, archery ranges, picnic grounds, boat ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting, trap and skeet activities, hunting and fishing areas and hiking and horseback riding trails, subject to the fill limitations of section 'l(5)' of this subsection.
(4) Uses or non-walled structures accessory to open space uses, or classified as historic structures that comply with sections 'l' and 'm' of this sub-section.
(5) Extraction of sand, gravel or other earth materials that comply with section 'l(5)' of this sub-section.
(6) Functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes.
(7) Public utilities, streets/highways and bridges that comply with section 'l(4)' of this subsection.
l. STANDARDS FOR DEVELOPMENT IN THE F-1, FLOODPLAIN DISTRICT
Any existing or proposed development within the SFHA and FSDs must adhere to the requirements of this ordinance.
(1) GENERAL
(a) Any permitted development in the SFHA shall comply with section 'f' of this subsection and have a low flood damage potential.


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(b) Applicants shall provide the following data to determine the effects of the proposal according to sections 'g' and 'q' of this sub-section:
i. A cross-section elevation view of the proposal, perpendicular to the watercourse, showing if the proposed development will obstruct flow; or
ii. An analysis performed by a state registered professional engineer calculating the effects of the proposal on regional or base flood height.
(c) The zoning administrator shall deny the permit application if the project will cause any increase in the flood elevations upstream or downstream, based on the data submitted for (b) above.
(2) STRUCTURES
Structures accessory to permanent open space uses or functionally dependent on a waterfront location such as an approved boathouse or boat dock may be allowed by permit if the structures comply with all the following criteria:
(a) Not designed for human habitation, does not have a high flood damage potential and is constructed to minimize flood damage;
(b) Has a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, and the bottom of all such openings being no higher than one foot above grade. The openings shall be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Must be anchored to resist flotation, collapse, and lateral movement;
(d) Mechanical and utility equipment must be elevated or flood proofed above the flood protection elevation; and
(e) Must not obstruct flow of flood waters or cause any increase in flood levels during the occurrence of the regional or base flood.
(3) FLOODPROOFING FOR NON-RESIDENTIAL STRUCTURES
Actions or measures designed to reduce or prevent flood damage must be taken for those buildings or structures which cannot be removed from the floodplain or, if substantially damaged, must be erected within the floodplain, including but not limited to the following: structural modification; installation of special equipment such as water extraction equipment; addition of operation and management safeguards; supplemental underpinning and reinforcement of floors; reinforcement of walls; sealing of doors and windows and other exterior openings; anchoring of buoyant tanks and material; erection of watertight bulkheads, windows and doors; waterproof treatment of exposed wood; elevation of flood vulnerable utilities and mechanical equipment; use of masonry construction with waterproof mortar; installation of submersible sump pumps; placement of backflow and automatic swing check valves; installation of wire reinforced glass; placement of drain plugs and flood drain pipes; and removal of anything that will float or be damaged by water or flood borne debris. These and any other floodproofing measures should be extended to at least two feet above the BFE. Most of the aforementioned measures require a building permit issued by the City Building Inspector. All floodproofing measures must be certified by a registered professional engineer or architect.
(4) PUBLIC UTILITIES, STREETS AND BRIDGES
Public utilities, streets and bridges may be allowed by permit, if:
(a) Adequate floodproofing measures are provided to the flood protection elevation; and
(b) Construction meets the development standards of section 'g' of this sub-section.
(5) FILL OR DEPOSITION OF MATERIALS
No floodplain may be filled and no walled structure built within the F-1, Floodplain as defined herein with the possible exception of the construction of required public utility and transportation facilities and structures requiring a waterfront location, which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District. PLEASE SEE
SUBSECTION 17.0435e(7), ABOVE as well as subsection 17.1108b and Appendix 5.
m. PROHIBITED USES
All uses not listed as permitted uses in section 'k' of this sub-section are prohibited, including the following uses:
(1) Walled structures, structures with high flood damage potential, or those not associated with permanent open-space uses, including mobile homes and recreation vehicles;
(2) Stored materials that are buoyant, flammable, explosive, injurious to property, water quality, or human, animal, plant, fish or other aquatic life;
(3) Uses not in harmony with or detrimental to uses permitted in the adjoining zoning districts;


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(4) Any private or public on-site wastewater treatment/disposal system, except portable latrines that are removed prior to flooding and systems associated with recreational areas and Department-approved campgrounds that meet the applicable provisions of local ordinances and ch. SPS 383 of the Wisconsin Administrative Code;
(5) Any public or private wells which are used to obtain potable water, except those for recreational areas that meet the requirements of local ordinances and chs. NR 811 and NR 812 of the Wisconsin Administrative Code;
(6) Any solid, liquid, or hazardous waste disposal sites;
(7) Any wastewater treatment ponds or facilities, except those permitted under s. NR
110.15(3)(b) of the Wisconsin Administrative Code;
(8) Any sanitary sewer or water supply lines, except those to service existing or proposed development located outside the floodway which complies with the regulations set forth herein;
(9) Storm water management retention or detention ponds;
(10) Any use requiring excavation or grading except those uses listed in section 'g' of this sub-section;
(11) Storage of materials such as compost, mulch, gravel, soil, fill (clean or unclean).
n. FLOOD STORAGE DISTRICT (FSDs) OF THE F-1, FLOODPLAIN
A 'FSD' is that portion of the floodplain where storage of floodwaters has been taken into account and is relied upon to reduce the regional or base flood discharge. The FSD protects the flood storage areas and assures that any development in the storage areas will not decrease the effective flood storage capacity which would cause higher flood elevations.
(1) APPLICABILITY
The provisions of this section apply to all areas within the FSDs, as shown on the official floodplain zoning maps.
(2) PERMITTED USES
Any use or development which occurs in a flood storage district must meet the applicable requirements in section 'l' of this sub-section.
o. NON-CONFORMING STRUCTURES AND USES IN THE F-1, FLOODPLAIN DISTRICT
If these standards conform to s. 62.23(7)(h) of Wisconsin Statutes, they shall apply to all modifications or additions to any nonconforming use or structure and to the use of any structure or premises which was lawful before the passage of this ordinance or any amendment thereto.
(1) GENERAL
The existing lawful use of a structure or its accessory use which is not in conformity with the provisions of this ordinance may continue subject to the following conditions:
(a) No modifications or additions to a nonconforming use or structure shall be permitted unless they comply with this ordinance. The words "modification" and "addition" include, but are not limited to, any alteration, structural repair, rebuilding or replacement of any such existing use, structure or accessory structure or use.
Maintenance is not considered a modification and includes painting, decorating, paneling and other nonstructural components and the maintenance, repair or replacement of existing private sewage or water supply systems or connections to public utilities. Any costs associated with the repair of a damaged structure are not considered maintenance. For the purposes of this subsection of the zoning ordinance, the construction of a deck that does not exceed 200 square feet and that is adjacent to the exterior wall of a principal structure is not a modification or addition. The roof of the structure may extend over a portion of the deck in order to provide safe ingress and egress to the principal structure.
(b) If a nonconforming use or the use of a nonconforming structure is discontinued for
12 consecutive months, it is no longer permitted and any future use of the property, and any structure or building thereon, shall conform to the applicable requirements of this ordinance;
(c) The city shall keep a record which lists all nonconforming uses and nonconforming structures, their present equalized assessed value, the cost of all modifications or additions which have been permitted, and the percentage of the structure's total current value those modifications represent;
(d) No modification or addition to any nonconforming structure or any structure with a nonconforming use, which over the life of the structure would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section. The cost of elevating the lowest floor of a nonconforming building or a building with a nonconforming use to the flood protection elevation is excluded from the 50% provisions of this paragraph;


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(e) No maintenance to any nonconforming structure or any structure with a nonconforming use, the cost of which would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(f) If on a per event basis the total value of the work being done under (d) and (e) equals or exceeds 50% of the present equalized assessed value, the work shall not be permitted unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(g) Except as provided in section 'l' of this sub-section, if any nonconforming structure or any structure with a nonconforming use is destroyed or is substantially damaged, it cannot be replaced, reconstructed or rebuilt unless the use and the structure meet the current ordinance requirements. A structure is considered substantially damaged if the total cost to restore the structure to its pre-damaged condition equals or exceeds 50% of the structure's current equalized assessed value.
(h) For nonconforming buildings that are substantially damaged or destroyed by a non-flood event, the repair or reconstruction of any such nonconforming building shall be permitted in order to restore it to the size and use in effect prior to the damage event, provided that the requirements below are met and all required permits have been granted prior to the start of construction.
(2) RESIDENTIAL STRUCTURES
(a) Structures shall have the lowest floor, including basement, elevated to or above the base flood elevation using fill, pilings, columns, posts or perimeter walls. Perimeter walls must meet the requirements of section 'o(4)' of this sub-section.
(b) Structures shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and shall be constructed with methods and materials resistant to flood damage.
(c) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
(d) Owners of structures in the SFHA must obtain, review and utilize any flood data available from a federal, state or other source.
(e) Structures in the SFHA with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section and adequate drainage paths or swales shall be placed around the structures on slopes to guide flood waters around and away from the structure without being diverted to adjacent properties without permission.
(3) NON-RESIDENTIAL STRUCTURES
(a) Structures shall meet the requirements of section 'o(2) a-e' of this sub-section.
(b) Structures shall either have the lowest floor, including basement, elevated to or above the regional or base flood elevation; or, together with attendant utility and sanitary facilities, shall meet the standards in section 'o(4)(a) and o(4)(b)' of this sub-section. A registered professional engineer or architect must certify that the perimeter walls shall be constructed so as to protect the structure.
(c) Structures in AO Zones with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section.
(4) FLOODPROOFING STANDARDS FOR NONCOMFORMING STRUCTURES OR USES – NON-RESIDENTIAL STRUCTURES
(a) No permit or variance shall be issued for a non-residential structure designed to be watertight below the regional or base flood elevation until the applicant submits a plan certified by a registered professional engineer or architect that the floodproofing measures will protect the structure or development to the flood protection elevation and submits a FEMA Floodproofing Certificate.
(b) For a structure designed to allow the entry of floodwaters, no permit or variance shall be issued until the applicant submits a plan either:
i. certified by a registered professional engineer or architect; or
ii. meets or exceeds the following standards:


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1. a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. the bottom of all openings shall be no higher than one foot above grade; and
3. openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Floodproofing measures shall be designed, as appropriate, to:
i. Withstand flood pressures, depths, velocities, uplift and impact forces and other regional flood factors;
ii. Protect structures to the flood protection elevation;
iii. Anchor structures to foundations to resist flotation and lateral movement;
iv. Minimize or eliminate infiltration of flood waters; and
v. Minimize or eliminate discharges into flood waters.
(5) OFFICIALLY DESIGNATED HISTORIC STRUCTURES
A nonconforming historic structure may be altered if: the alteration will not preclude the structure's continued designation as a historic structure; the alteration will comply with section 'l' of this sub-section; flood resistant materials are used; and construction practices and floodproofing methods that comply with section 'o' of this sub-section are used. Repair or rehabilitation of historic structures shall be exempt from the development standards of section 'o(2)' of this sub-section if it is determined that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and is the minimum necessary to preserve the historic character and design of the structure.
(6) STRUCTURES IN A FLOOD STORAGE DISTRICT (FSD)
No modifications or additions shall be allowed to any nonconforming structure in a flood storage area unless the standards outlined in section 'n' of this sub-section are met.
p. ADMINISTRATION
(1) ZONING ADMINISTRATOR – DUTIES AND POWERS (see 17.0203 &17.1000)
The zoning administrator is authorized to administer this ordinance and shall have the following duties and powers:
(a) Attend all meetings of the Zoning Board of Appeals.
(b) Advise applicants of the ordinance provisions, assist in preparing permit applications and appeals, and assure that the regional or base flood elevation for the proposed development is shown on all permit applications.
(c) Issue permits and inspect properties for compliance with provisions of this ordinance and issue certificates of compliance where appropriate.
(d) Inspect and assess all damaged floodplain structures to determine if substantial damage to the structures has occurred.
(e) Keep records of all official actions such as:
i. All permits issued, inspections made, and work approved;
ii. Documentation of certified lowest floor and regional or base flood elevations;
iii. Issuance of Floodproofing Certificates.
iv. Water surface profiles, floodplain zoning maps and ordinances, nonconforming uses and structures including changes, appeals, variances and amendments.
v. All substantial damage assessment reports for floodplain structures.
vi. List of nonconforming structures and uses.
(f) Submit copies of the following items to the Department Regional office:
i. Within 10 days of the decision, a copy of any decisions on variances, appeals for map or text interpretations, and map or text amendments;
ii. Copies of case-by-case analyses and other required information including an annual summary of floodplain zoning actions taken.
iii. Copies of substantial damage assessments performed and all related correspondence concerning the assessments.
(g) Investigate, prepare reports, and report violations of this ordinance to the City
Planner and City Attorney for prosecution. Copies of the reports shall also be sent to the Department Regional office.
(h) Submit copies of amendments to the FEMA Regional office.
(2) LAND USE PERMIT


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A land use permit shall be obtained before any new development; repair, modification or addition to an existing structure; or change in the use of a building or structure, including sewer and water facilities, may be initiated. Application for a permit to the
City planner or zoning administrator shall include:
(a) GENERAL INFORMATION
i. Name and address of the applicant, property owner and contractor;
ii. Legal description, proposed use, and whether it is new construction or a modification.
(b) A SITE DEVELOPMENT PLAN
A site development plan drawn to scale shall be submitted with the permit application form and shall contain:
i. Location, dimensions, area and elevation of the lot or parcel;
ii. Location of the ordinary high water mark (OHWM) of any abutting navigable waterways;
iii. Location of any structures with distances measured from the lot lines and street center lines;
iv. Location of any existing or proposed on-site sewage systems or private water supply systems;
v. Location and elevation of existing or future access roads;
vi. Location of floodplain and floodway limits as determined from the official floodplain zoning maps;
vii. The elevation of the lowest floor of proposed buildings and any fill using the vertical datum from the adopted study – either National Geodetic Vertical Datum
(NGVD) or North American Vertical Datum (NAVD);
viii. Data sufficient to determine the regional or base flood elevation in NGVD or NAVD at the location of the development and to determine whether or not the requirements of sections 'k, l, or m' of this sub-section are met; and
ix. Data to determine if the proposed development will cause an obstruction to flow or an increase in regional or base flood height or discharge according to section 'g' of this sub-section. This may include any of the information noted in section 'l(1)' of this sub-section.
(3) EXPIRATION
For the purposes of this subsection of this ordinance all permits issued for floodplain development shall expire no later than 180 days after issuance. The permit may be extended for up to 180 day for good and sufficient cause.
(4) OTHER PERMITS
Prior to obtaining a land use permit the applicant must obtain permits from all other federal, state, county and city permitting agencies, including but not limited to: the U.S. Army Corp of Engineers under the s. 404 of the Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1344.
q. HYDRAULIC AND HYDROLOGIC STUDIES TO ANALYZE DEVELOPMENT
All hydraulic and hydrologic studies shall be completed under the direct supervision of a state registered professional engineer. The registered professional engineer shall be responsible for the technical adequacy of the study. All studies shall be reviewed and approved by the Department.
(1) ZONE A FLOODPLAIN AREA
(a) HYDROLOGY
The appropriate method shall be based on the standards in ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODELING
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or Base Flood Elevation and the following:
i. Determination of the required limits of the hydraulic model shall be based on detailed study information for downstream structures (dam, bridge, culvert) to determine adequate starting WSEL for the study.
ii. Channel sections must be surveyed.
iii. Minimum four foot contour data in the overbanks shall be used for the development of cross section overbank and floodplain mapping.
iv. A maximum distance of 500 feet between cross sections is allowed in developed areas with additional intermediate cross sections required at transitions in channel bottom slope including a survey of the channel at each location.
v. The most current version of HEC-RAS shall be used.
vi. A survey of bridge and culvert openings and the top of road is required at each structure.


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vii. Additional cross sections are required at the downstream and upstream limits of the development and any necessary intermediate locations based on the length of the reach if greater than 500 feet.
viii. Standard accepted engineering practices shall be used when assigning parameters for the base model such as flow, Manning's N values, expansion and contraction coefficients or effective flow limits. The base model shall be calibrated to past flooding data such as high water marks to determine the reasonableness of the model results. If no historical data is available, adequate justification shall be provided for any parameters outside standard accepted engineering practices.
ix. The model must extend past the upstream limit of the difference in the existing and proposed flood profiles in order to provide a tie-in to existing studies. The height difference between the proposed flood profile and the existing study profiles shall be no more than 0.00 feet.
(c) MAPPING
A work map of the stream reach studied shall be provided, showing all cross section locations, floodway/floodplain limits based on best available topographic data, geographic limits of the development and whether the development is located in the floodway.
i. If the development is located outside of the floodway, then it is determined to have no impact on the regional or base flood elevation.
ii. If any part of the development is in the floodway, it must be added to the base model to show the difference between existing and proposed conditions. The study must ensure that all coefficients remain the same as in the existing model, unless adequate justification based on standard accepted engineering practices is provided.
(2) ZONE AE FLOODPLAIN AREA
(a) HYDROLOGY
If the proposed hydrology will change the existing study, the appropriate method to be used shall be based on ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODEL
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or base Flood Elevation and the following:
i. Duplicate Effective Model - The effective model shall be reproduced to ensure correct transference of the model data and to allow integration of the revised data to provide a continuous FIS model upstream and downstream of the revised stream reach. If data from the effective model is available, models shall be generated that duplicate the FIS profiles and the elevations shown in the Floodway Data Table in the FIS report to within 0.1 foot.
ii. Corrected Effective Model - The Corrected Effective Model shall not include any man-made physical changes since the effective model date, but shall import the model into the most current version of HEC-RAS for Department review.
iii. Existing (Pre-Project Conditions) Model - The Existing Model shall be required to support conclusions about the actual impacts of the project associated with the Revised (Post-Project) Model or to establish more up-to-date models on which to base the Revised (Post-Project) Model.
iv. Revised (Post-Project Conditions) Model - The Revised (Post-Project Conditions) Model shall incorporate the Existing Model and any proposed changes to the topography caused by the development. This model shall reflect proposed conditions.
v. All changes to the Duplicate Effective Model and subsequent models must be supported by certified topographic information, bridge plans, construction plans and survey notes.
vi. Changes to the hydraulic models shall be limited to the stream reach for which the revision is being requested. Cross sections upstream and downstream of the revised stream reach shall be identical to those in the effective model and result in water surface elevations and top widths computed by the revised models matching those in the effective models upstream and downstream of the revised stream reach as required. The Effective Model shall not be truncated.
(c) MAPPING
Maps and associated engineering data shall be submitted to the Department for review which meet the following conditions:
i. Consistency between the revised hydraulic models, the revised floodplain and floodway delineations, the revised flood profiles, topographic work map, annotated FIRMs and/or Flood Boundary Floodway Maps (FBFMs), construction plans, bridge plans.


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ii. Certified topographic map of suitable scale, contour interval, and a planimetric map showing the applicable items. If a digital version of the map is available, it may be submitted in order that the FIRM may be more easily revised.
iii. Annotated FIRM panel showing the revised 1.0% and 0.2% annual chance floodplains and floodway boundaries.
iv. If an annotated FIRM and/or FBFM and digital mapping data (GIS or CADD) are used then all supporting documentation or metadata must be included with the data submission along with the Universal Transverse Mercator (UTM) projection and State Plane Coordinate System in accordance with FEMA mapping specifications.
v. The revised floodplain boundaries shall tie into the effective floodplain boundaries.
vi. All cross sections from the effective model shall be labeled in accordance with the effective map and a cross section lookup table shall be included to relate to the model input numbering scheme.
vii. Both the current and proposed floodways shall be shown on the map.
viii. The stream centerline, or profile baseline used to measure stream distances in the model shall be visible on the map.
(3) CERTIFICATE OF COMPLIANCE
For the purposes of this subsection, no land shall be occupied or used, and no building which is hereafter constructed, altered, added to, modified, repaired, rebuilt or replaced shall be occupied until approved by either the Zoning Administrator, City Planner, Plan Commission, Common Council or combinations of these persons or bodies as stipulated in section 17.0200 or elsewhere in this zoning ordinance, and only after the owner has submitted a certification signed by a registered professional engineer, architect or land surveyor that any fill and lowest floor and floodproofing elevations are in compliance with the permit issued. Floodproofing measures also require certification by a registered professional engineer or architect that floodproofing measures meet the requirements of this subsection.
r. ZONING BOARD OF APPEALS (ZBA)
(PLEASE SEE SUBSECTION 17.1000 OF THIS ORDINANCE)
s. PUBLIC INFORMATION
The Zoning Administrator and authorized assistants, the City Planner and other City staff involved in interaction with the public and the media shall provide any electronic, written or verbal information regarding floodplains upon request. In addition they shall:
(1) Keep current records of local flooding;
(2) Retain all available official floodplain maps and documents for ready use;
(3) Provide flood information to other state, county and local agencies and, when possible, mark previously flood inundated structures to show the level of inundation.
(4) Retain any real estate transfers showing in what floodplain district any real property is located.
t. AMENDMENTS
Obstructions or increases may only be permitted if amendments are made to this subsection of the zoning ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section.
(1) In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a CLOMR from FEMA and amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section. Any such alterations must be reviewed and approved by FEMA and the DNR.
(2) The governing body shall change or supplement the floodplain zoning district boundaries and this ordinance in the manner outlined in section 't(3)' of this sub-section below. Actions which require an amendment to the ordinance and/ or submittal of a LOMC include, but are not limited to, the following:
(a) Any fill or floodway encroachment that obstructs flow causing any increase in the regional or base flood height;
(b) Any change to the floodplain boundaries and/or watercourse alterations on the
FIRM;
(c) Any changes to any other officially adopted floodplain maps listed in section 'e(4)' of this sub-section;
(d) Any floodplain fill which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain;
(e) Correction of discrepancies between the water surface profiles and floodplain maps;
(f) Any upgrade to a floodplain zoning ordinance text required by s. NR 116.05, Wis.


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Adm. Code, or otherwise required by law, or for changes by the city; and
(g) All channel relocations and changes to the maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a BFE from a FIRM requires prior approval by FEMA.
(3) Ordinance amendments may be made upon petition of any party according to the provisions of s. 62.23 of Wisconsin Statutes. The petitions shall include all data required by section 'p(2)' of this sub-section. The Building and/or Land Use Permit shall not be issued until a LOMR is issued by FEMA for the proposed changes.
(a) The proposed amendment shall be referred to the City Plan Commission for a public hearing and recommendation to the governing body. The amendment and notice of public hearing shall be submitted to the Department Regional office for review prior to the hearing. The amendment procedure shall comply with the provisions of s. 62.23 of the Wisconsin Statutes.
(b) No amendments shall become effective until reviewed and approved by the
Department.
(c) All persons petitioning for a map amendment that obstructs flow causing any increase in the regional or base flood height, shall obtain flooding easements or other appropriate legal arrangements from all adversely affected property owners and notify local units of government before the amendment can be approved by the governing body.
u. ENFORCEMENT AND PENALTIES
Any violation of the provisions of this ordinance by any person shall be unlawful and shall be referred to the city attorney who shall expeditiously prosecute all such violators. A violator shall, upon conviction, forfeit to the city a penalty of $50.00 (fifty dollars) or the maximum allowed under ss.87.30(2) for each separate offense, together with a taxable cost of such action. Each day of continued violation shall constitute a separate offense. Every violation of this ordinance is a public nuisance and the creation may be enjoined and the maintenance may be abated by action at suit of the city, the state, or any citizen thereof pursuant to s. 87.30 of Wisconsin Statutes.
v. DEFINITIONS
Unless specifically defined, words and phrases in this ordinance shall have their common law meaning and shall be applied in accordance with their common usage. Words used in the present tense include the future, the singular number includes the plural and the plural number includes the singular. The word "should" is advisory, the word "may" is permissive, the words "shall" or "must" are mandatory and are not discretionary.
(1) A Zones – Those areas shown on the Official Floodplain Zoning Map which would be inundated by the regional or base flood. These areas may be numbered or unnumbered
A Zones. The A Zones may or may not be reflective of flood profiles, depending on the availability of data for a given area.
(2) AH Zone – See "Area of Shallow Flooding".
(3) AO Zone – See "Area of Shallow Flooding".
(4) Accessory Structure Or Use – A facility, structure, building or use which is accessory or incidental to the principal use of a property, structure or building.
(5) Alteration – An enhancement, upgrading or substantial change or modifications other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a structure.
(6) Area Of Shallow Flooding – A designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1.0 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flood may be evident. Such flooding is characterized by ponding or sheet flow.
(7) Base Flood –The flood having a one percent chance of being equaled or exceeded in any given year, as published by FEMA as part of a FIS and depicted on a FIRM. Also called the one hundred year recurrence interval flood.
(8) Basement – Any enclosed area of a building having its floor sub-grade, i.e., below ground level, on all sides.
(9) Building – See "Structure".
(10) Bulkhead Line – A geographic line along a reach of navigable water that has been adopted by a municipal ordinance and approved by the Department pursuant to s. 30.11 of Wisconsin Statutes, and which allows limited filling between this bulkhead line and the original ordinary high water mark (OHWM), except where such filling is prohibited by the floodway provisions of this ordinance.


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(11) Campground – Any parcel of land which is designed, maintained, intended or used for the purpose of providing sites for nonpermanent overnight use by 4 or more camping units, or which is advertised or represented as a camping area. (12) Camping Unit – Any portable device, no more than 400 square feet in area, used as a temporary shelter, including but not limited to a camping trailer, motor home, bus, van, pick-up truck, or tent that is fully licensed, if required, and ready for highway use.
(13) Certificate of Compliance – A certification that the construction and the use of land or a building, the elevation of fill or the lowest floor of a structure is in compliance with all of the provisions of this ordinance.
(14) Channel – A natural or artificial watercourse with definite bed and banks to confine and conduct normal flow of water.
(15) Crawlways or Crawl Space – An enclosed area below the first usable floor of a building, generally less than five feet in height, used for access to plumbing and electrical utilities.
(16) Deck – An unenclosed exterior structure that has no roof or sides, but has a permeable floor which allows the infiltration of precipitation.
(17) Department – The Wisconsin Department of Natural Resources.
(18) Development – Any artificial change to improved or unimproved real estate, including, but not limited to, the construction of buildings, structures or accessory structures; the construction of additions or alterations to buildings, structures or accessory structures; the repair of any damaged structure or the improvement or renovation of any structure, regardless of percentage of damage or improvement; the placement of buildings or structures; subdivision layout and site preparation; mining, dredging, filling, grading, paving, excavation or drilling operations; the storage, deposition or extraction of materials or equipment; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities.
(19) Dryland Access – A vehicular access route which is above the regional or base flood elevation and which connects land located in the floodplain to land outside the floodplain, such as a road with its surface above regional or base flood elevation and wide enough for wheeled rescue and relief vehicles.
(20) Encroachment – Any fill, structure, equipment, use or development in the floodway.
(21) Federal Emergency Management Agency (FEMA) – The federal agency that administers the National Flood Insurance Program.
(22) Flood Insurance Rate Map (FIRM) – A map of a community on which the Federal Insurance Administration has delineated both the floodplain and the risk premium zones applicable to the community. This map can only be amended by the Federal Emergency Management Agency.
(23) Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas caused by one of the following conditions:
- The overflow or rise of inland waters;
- The rapid accumulation or runoff of surface waters from any source;
- The inundation caused by waves or currents of water exceeding anticipated cyclical levels along the shore of Lake Michigan; or
- The sudden increase caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a seiche, or by some similarly unusual event.

(24) Flood Frequency – The probability of a flood occurrence which is determined from statistical analyses. The frequency of a particular flood event is usually expressed as occurring, on the average once in a specified number of years or as a percent (%) chance of occurring in any given year.
(25) Floodfringe – That portion of the one hundred year recurrence interval floodplain outside of the floodway which is covered by flood waters during the regional or base flood and are usually represented or associated with standing or slow moving circulating water rather than straight flowing water.
(26) Flood Hazard Boundary Map – A map designating approximate flood hazard areas. Flood hazard areas are designated as unnumbered A-Zones and do not contain floodway lines or regional or base flood elevations. This map forms the basis for both the regulatory and insurance aspects of the National Flood Insurance Program (NFIP) until superseded by a Flood Insurance Study and a Flood Insurance Rate Map (FIRM).
(27) Flood Insurance Study (FIS) – A technical engineering examination, evaluation, and determination of the local flood hazard areas. It provides maps designating those areas affected by the regional or base flood and provides both flood insurance rate zones and base flood elevations and may provide floodway lines. The flood hazard areas are designated as numbered and unnumbered A-Zones. Flood Insurance Rate Maps, that accompany the FIS, form the basis for both the regulatory and the insurance aspects of the NFIP.


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(28) Floodplain – In the City of Pewaukee, lakes and streams and adjoining land which has been or may be covered by flood water during a regional or base flood, and which is comprised of the floodway, flood fringe, the FEMA 'A zones' plus the WisDNR Flood Storage Districts (FSDs).
(29) Floodplain Island – A natural geologic land formation within the floodplain that is surrounded, but not covered, by floodwater during the regional or base flood.
(30) Floodplain Management – Policy and procedures to insure wise use of floodplains, including mapping and engineering, mitigation, education, and administration and enforcement of floodplain regulations.
(31) Flood Profile – A graph or a longitudinal profile line showing the relationship of the water surface elevation of a flood event to locations of land surface elevations along a stream or river.
(32) Floodproofing – Any combination of structural provisions, changes or adjustments to properties and structures, water and sanitary facilities and contents of buildings subject to flooding, for the purpose of reducing or eliminating flood damage.
(33) Flood Protection Elevation – An elevation of two feet of freeboard above the water surface profile elevation designated for the regional or base flood. (Also see: "Freeboard".)
(34) Flood Storage – Those floodplain areas where storage of floodwaters has been taken into account during analysis in reducing the regional or base flood discharge.
(35) Floodway – The channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the main flow of the regional or base flood discharge and represented or associated with fast moving water.
(36) Freeboard – A safety factor expressed in terms of a specified number of feet above a calculated flood level. Freeboard compensates for any factors that cause flood heights greater than those calculated, including ice jams, debris accumulation, wave action, obstruction of bridge openings and floodways, the effects of watershed urbanization, loss of flood storage areas due to development and aggregation of the river or stream bed.
(37) Habitable Structure – Any structure or portion thereof used or designed for human habitation.
(38) Hearing Notice – Publication or posting meeting the requirements of Ch. 985, Stats. For appeals, a Class 1 notice, published once at least one week (7 days) before the hearing, is required. For all zoning ordinances and amendments, a Class 2 notice, published twice, once each week consecutively, the last at least a week (7 days) before the hearing. Local ordinances or bylaws may require additional notice, exceeding these minimums.
(39) High Flood Damage Potential – Damage that could result from flooding that includes any danger to life or health or any significant economic loss to a structure or building and its contents.
(40) Highest Adjacent Grade – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
(41) Historic Structure – Any structure that is either:
 Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program, as determined by the Secretary of the Interior; or by the Secretary of the Interior in states without approved programs.
(42) Increase In Regional or Base Flood Height – A calculated upward rise in the regional or base flood elevation greater than 0.00 foot, based on a comparison of existing conditions and proposed conditions which is directly attributable to development in the floodplain but not attributable to manipulation of mathematical variables such as roughness factors, expansion and contraction coefficients and discharge.
(43) Land Use – Any use consisting of unimproved or improved real estate. (Also see "Development".)
(44) Lowest Adjacent Grade – Elevation of the lowest ground surface that touches any of the exterior walls of a building.
(45) Lowest Floor – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a


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basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.
(46) Maintenance – The act or process of restoring to original soundness, including redecorating, refinishing, nonstructural repairs, or the replacement of existing fixtures, systems or equipment with equivalent fixtures, systems or structures.
(47) Manufactured Home – A structure transportable in one or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities. The term "manufactured home" includes a mobile home but does not include a "mobile recreational vehicle."
(48) Mobile/Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land, divided into two or more manufactured home lots for rent or sale.
(49) Mobile/Manufactured Home Park or Subdivision, Existing – A parcel of land, divided into two or more manufactured home lots for rent or sale, on which the construction of facilities for servicing the lots is completed before the effective date of this ordinance. At a minimum, this would include the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.
(50) Mobile/Manufactured Home Park, Expansion to Existing – The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed. This includes installation of utilities, construction of streets and either final site grading, or the pouring if concrete pads.
(51) Mobile Recreational Vehicle (RV) – A vehicle which is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled, carried or permanently towable by a licensed, light-duty vehicle, is licensed for highway use if registration is required and is designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel or seasonal use. Manufactured homes that are towed or carried onto a parcel of land, but do not remain capable of being towed or carried, including park model homes, do not fall within the definition of "mobile recreational vehicles."
(52) Model, Corrected Effective – A hydraulic engineering model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model.
(53) Model, Duplicate Effective – A copy of the hydraulic analysis used in the effective FIS and referred to as the effective model.
(54) Model, Effective – The hydraulic engineering model that was used to produce the current effective Flood Insurance Study.
(55) Model, Existing (Pre-Project) – A modification of the Duplicate Effective Model or Corrected Effective Model to reflect any man made modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model.
(56) Model, Revised (Post-Project) – A modification of the Existing or Pre-Project Conditions Model, Duplicate Effective Model or Corrected Effective Model to reflect revised or post-project conditions.
(57) Municipality or Municipal – The city governmental agencies enacting, administering and enforcing this zoning ordinance.
(58) NAVD or North American Vertical Datum – Elevations referenced to mean sea level datum, 1988 adjustment.
(59) NGVD or National Geodetic Vertical Datum – Elevations referenced to mean sea level datum, 1929 adjustment.
(60) New Construction – For floodplain management purposes, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain zoning regulations adopted by the City and includes any subsequent improvements to such structures. For the purpose of determining flood insurance rates, it includes any structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.
(61) Nonconforming Structure – An existing lawful structure or building which is not in conformity with the dimensional or structural requirements of this ordinance for the area of the floodplain which it occupies. (For example, an existing residential structure in the flood fringe is a conforming use. However, if the lowest floor is lower than the flood protection elevation, the structure is nonconforming.)


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(62) Nonconforming Use – An existing lawful use or accessory use of a structure or building which is not in conformity with the provisions of this ordinance for the area of the floodplain which it occupies. (Such as a residence in the floodway.)
(63) Obstruction to Flow – Any development which blocks the conveyance of floodwaters such that this development alone or together with any future development will cause an increase in regional or base flood height.
(64) Official Floodplain Zoning Map – That map, adopted and made part of this ordinance, as described in s. 1.5(2), which has been approved by the Department and FEMA.
(65) Open Space Use – Those uses having a relatively low flood damage potential and not involving structures.
(66) Ordinary Highwater Mark – The point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.
(67) Person – An individual, or group of individuals, corporation, partnership, association, municipality or state agency.
(68) Private Sewage System – A sewage treatment and disposal system serving one structure with a septic tank and soil absorption field located on the same parcel as the structure. It also means an alternative sewage system approved by the Department of Safety and Professional Services, including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure.
(69) Public Utilities – Those utilities using underground or overhead transmission lines such as electric, telephone and communication cables, as well as liquid distribution and collection systems such as water mains, sanitary sewers and storm sewers.
(70) Reasonably Safe From Flooding – Means base flood waters will not inundate the land or damage structures to be removed from the floodplain and that any subsurface waters related to the base flood will not damage existing or proposed buildings.
(71) Regional Flood – A flood determined to be representative of large floods known to have occurred in Wisconsin. A regional flood is a flood with a one percent chance of being equaled or exceeded in any given year, and if depicted on the FIRM, the RFE is equivalent to the BFE. (See BASE FLOOD)
(72) Special Flood Hazard Areas (SFHA) – Represent all the land and water areas that are prone to flooding, including: lakes and streams, the designated floodway, the designated flood fringe, the FEMA 'A' zone, and the WisDNR Flood Storage Districts (FSDs).
(73) Start of Construction – The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond initial excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For an alteration, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
(74) Structure – Any manmade object with form, shape and utility, either permanently or temporarily attached to, placed upon or set into the ground, stream bed or lake bed, including, but not limited to, roofed and walled buildings, gas or liquid storage tanks, bridges, dams and culverts.
(75) Subdivision – Has the meaning given in s. 236.02(12) of Wisconsin Statutes.
(76) Substantial Damage – Damage of any origin sustained by a structure, whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the equalized assessed value of the structure before the damage occurred.
(77) Substantial Improvement – Any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the equalized assessed value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the work performed. The term does not, however, include either any project for the improvement of a building required to correct existing health, sanitary or safety code violations identified


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by the building official and that are the minimum necessary to assure safe living conditions; or any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.
(78) Unnecessary Hardship – Where special conditions affecting a particular property, which were not self-created, have made strict conformity with restrictions governing areas, setbacks, frontage, height or density unnecessarily burdensome or unreasonable in light of the purposes of the ordinance.
(79) Variance – An authorization by the board of adjustment or appeals for the construction or maintenance of a building or structure in a manner which is inconsistent with dimensional standards (not uses) contained in the floodplain zoning ordinance. (80) Violation – The failure of a structure or other development to be fully compliant with the floodplain zoning ordinance. A structure or other development without required permits, lowest floor elevation documentation, floodproofing certificates or required floodway encroachment calculations is presumed to be in violation until such time as that documentation is provided.
(81) Watershed – The entire region contributing runoff or surface water to a watercourse or body of water.
(82) Water Surface Profile – A graphical representation showing the elevation of the water surface of a watercourse for each position along a reach of river or stream at a certain flood flow. A water surface profile of the regional or base flood is used in regulating floodplain areas.
(83) Well – means an excavation opening in the ground made by digging, boring, drilling, driving or other methods, to obtain groundwater regardless of its intended use.

**CITY OF PEWAUKEE MUNICIPAL CODE 87 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

17.0433 LC, LOWLAND CONSERVANCY DISTRICT
The LC, Lowland Conservancy District is intended to be used to delineate those land and water areas that exhibit the physical characteristics of wetlands as defined by botanical and soil experts and professional biologists and, therefore, do not possess the capability of supporting urban or dense rural development, and by doing so, prevent disruption of valuable natural or man-made resources and to protect watercourses, including the shorelands of navigable waters and areas that are not adequately drained or areas which are subject to periodic flooding, where development would result in hazards to health or safety or would be otherwise detrimental to the public welfare and which are not delineated as floodplain areas as set forth in sub-section 17.0435. The delineation of such district boundaries shall be based on information provided by those agencies of government having recognized jurisdiction or expertise in such delineation.
a. Permitted Principal Uses
(1) Non-tilled agricultural uses when conducted in accordance with County
Soil and Water Conservation District Standards. (See 17.0433c below)
(2) Fishing and hunting where allowed by other laws or ordinances.
(3) Harvesting of wild crops such as marsh hay, ferns, moss, berries, tree fruits, and tree seeds.
(4) Preservation of scenic, historic, native grassed prairies and scientific areas.
(5) Public fish hatcheries.
(6) Public and private open space areas.
(7) Sod farms (See (1) above).
(8) Stream bank and lakeshore protection.
(9) Sustained yield forestry.
(10) Wildlife preserves.
(11) Public works.
b. Permitted Accessory Uses
(1) Structures used in or accessory to a fish hatchery.
(2) Non-walled park or recreation shelters.
(3) Structures such as elevated wooden walkways used to traverse lowlands or watercourses.
(4) See Section 17.0700.
c. Conditional Uses
(1) Any activity that requires the excavation or stockpiling of earthen materials. (Also see 17.0433i, below).
(2) Non-conforming structure modification.


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d. Lot Area and Width
No minimum lot area or width.
e. Building Height and Area (See subsection 17.0210)
(1) No principal building or structure or part thereof shall exceed 35 feet in height.
(2) No accessory building or structure or part thereof shall exceed 18 feet in height.
(3) The sum total of the ground level area of all buildings or structures shall not exceed one (1) percent of the total area of the parcel.
f. Setback and Yards.
Same as the most restrictive adjacent zoning district.
g. Off-street Parking and Loading Space
Off-street parking and loading space to accommodate permitted principal and accessory uses on the premises (see section 17.0600).
h. Minimum Utility Service
Electricity
i. Special Regulations
To encourage uses that are compatible with the residential character of the City, Building and/or Zoning permits for permitted uses in the LC-Lowland Conservancy District shall not be issued without prior review by and approval of the City Plan Commission. Said review and approval shall be concerned with adjacent existing and planned uses, need for public or private water supply and sanitary disposal facilities, general site layout, building and operation plans, building materials, ingress, egress, signage, lighting, storm water drainage, parking, loading and unloading, and screening and landscape plans. Permits issued by the U.S. Army Corp of Engineers and the WisDNR may be required. In addition, where walled structures exist within the LC district and are, therefore non-conforming, they may only be added to or modified in compliance with these regulations, including subsection 17.0435j.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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PARCEL A OF CERTIFIED SURVEY MAP NO. 2100, RECORDED JUNE 21, 1974 IN VOLUME 14 OF CERTIFIED SURVEY MAPS ON PAGES 345 TO 349 AS DOCUMENT NO. 885323, BEING A PART OF THE NORTHEAST 1/4 OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

TAX KEY NO. PWC 0909999001


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 3**
**Owner: Kurt D. and Katie L. Nettesheim**
**Interest: PLE**

Parcel 3 of Transportation Project Plat 21-01-4.02 recorded as Document No. 4651917 on February 15, 2022, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel 3 consist of:

**Permanent Limited Easement**


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**ADDENDUM F**

**ACQUISITION PLAT**


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## ACQUISITION PLAT



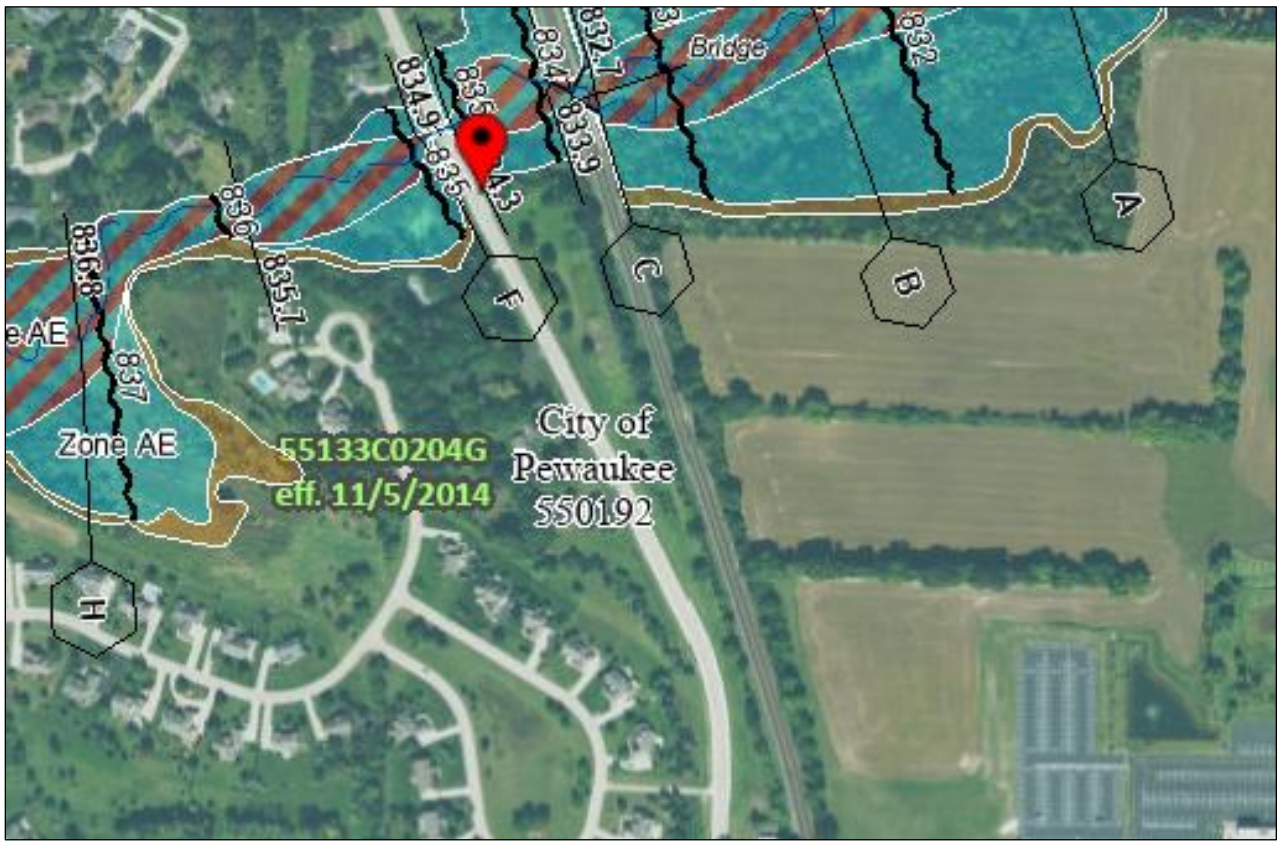


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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# ADDENDUM H
# QUALIFICATIONS


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 2370-04-70**
Located at W224N3884 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 2

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

March 2, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 2370-04-70
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 2

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. According Public Records, the site contains approximately 3.5724-acres or 155,614-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W224N3884 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**ONE HUNDRED DOLLARS**

**($100)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $100 |
| **Total Damages (Rounded):** | $100 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$100** |
| **Total:** | **$100** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Jason Williams spoke with Kurt D. Nettesheim, owner, via telephone and invited him to accompany the appraisers on the inspection. Mr. Nettesheim declined but told Mr. Williams they can inspect unaccompanied. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $100.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Kurt D. and Katie L. Nettesheim |
| Property Address: | W224N3884 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin 53072 |
| Owner Address: | W224N3884 Duplainville Rd., City of Pewaukee, Waukesha, Wisconsin 53072 |
| Phone: | 262-510-1932 |
| Total Land Area: | 3.574-acres or 155,614-square feet |
| Building Improvements: | The subject is improved with a single-family residence |
| Assessor's Parcel Number: | PWC 0909999001 |
| Current Zoning: | Rs-2, Single-Family Residential, F-1, Floodplain, and LC, Lowland Conservancy Districts |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Residential Development |
| As Improved: | Single-Family Residence |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Temporary Limited Easement: | 247 square feet or 0.00567 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $100 |
| **Total Damages (Rounded):** | $100 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$100** |
| **Total:** | **$100** |


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C Comparable Land Sales
D Zoning Map & Code
E Legal Descriptions
F Acquisition Plat
G Flood Plain Map
H Appraiser Qualifications


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owners of the subject property are Kurt D. and Katie L. Nettesheim. According to public records the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | March 2, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

There are two extraordinary assumptions in the analysis. Generally, a contractor is unlikely to know the exact timing when the subject property will be utilized for its specific purpose under the Temporary Limited Easement. Because of this uncertainty of timing, the determination of the time period during which the Temporary Limited Easement will actually require physical possession of the property is estimated by the


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engineer who gives this information to the appraiser. The appraiser employs this as an extraordinary assumption within the appraisal report. The use of this extraordinary assumption may have altered the appraisal results.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.

**HYPOTHETICAL CONDITION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

**MARKET VALUE**

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:


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1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Temporary Limited Easement totaling 247-square feet or 0.00567-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). The duration of the Temporary Limited Easement is the time period between the date of appraisal (February 13, 2022) and the scheduled construction completion date (December 1, 2022) or approximately 10 months. However, the project clean-up may run until November 2023. Therefore, duration of the Temporary Limited Easement is February 13, 2022 to November 1, 2023 or approximately 21 months.

**OWNERS CONCERNS**

None noted.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 30 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a residential use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |


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In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

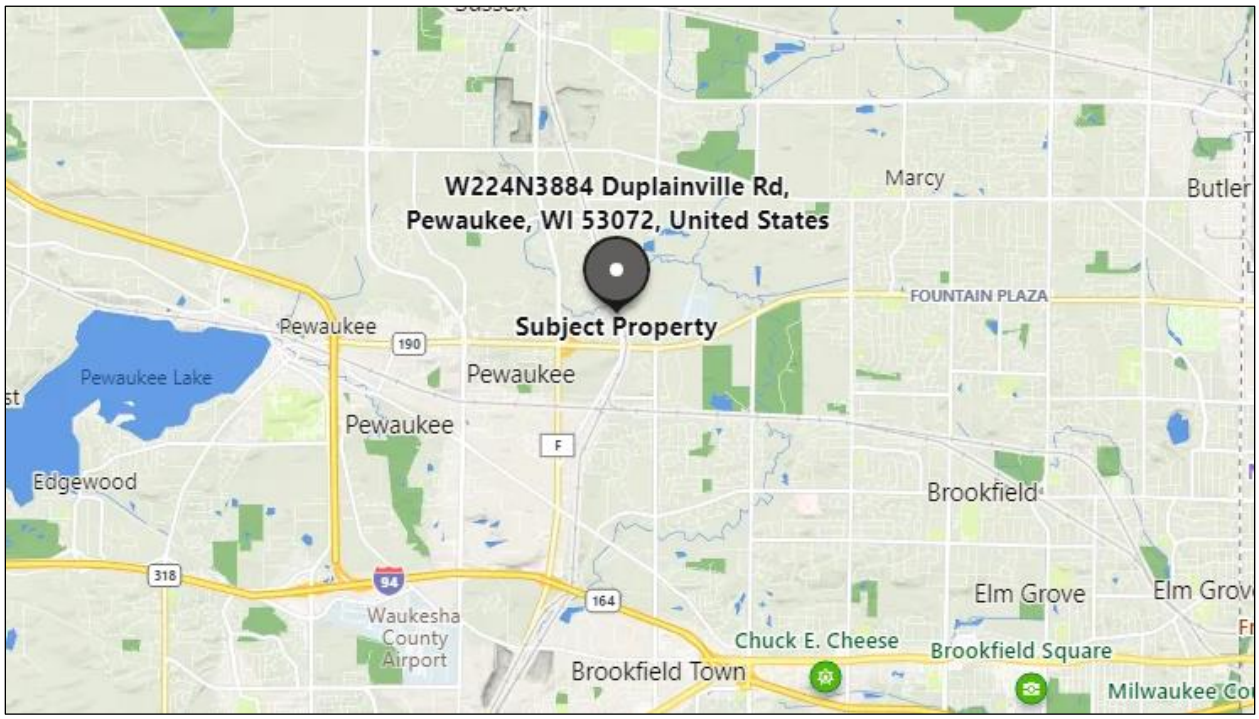

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.


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Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet.

### Shape and Frontage

The subject is irregular in shape with approximately 1,450 linear feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has an irregular shape and is generally level and at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available and connected to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

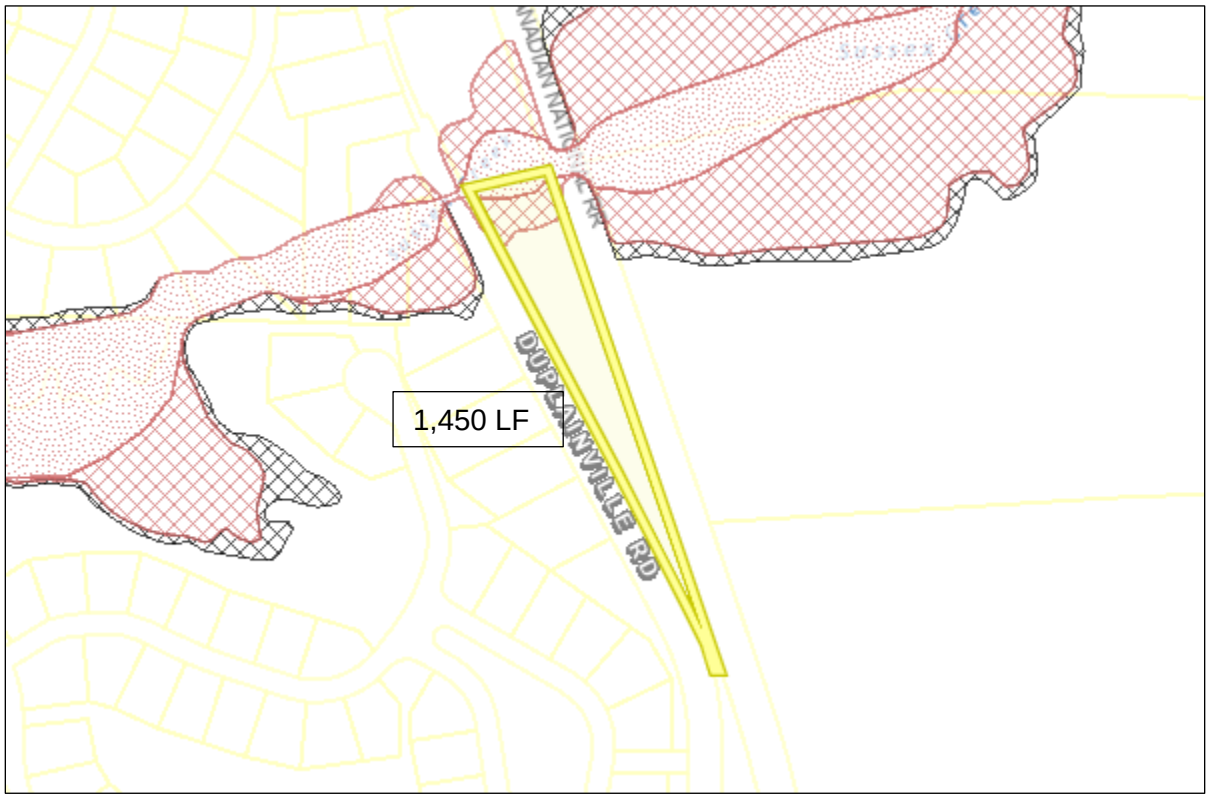
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within Zone X and Zone AE as indicated on FEMA Community Map Panel 55133CO204G dated November 5, 2014. According to the maps the single-family residence is located in Zone X while the project area is located in Zone AE.

FEMA Zone X: Areas determined to be outside the 500 year flood plain.

FEMA Zone AE: Areas subject to inundation by the 1-percent-annual-chance flood event.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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**Site Improvements**

The site is improved with a single-family residence. The improvements will not be impacted by the road project.

**Aerial Map**




**Larger Parcel**

According to Public Records, the site contains approximately 3.574-acres or 155,614-square feet. The subject is improved with a single-family residence. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

**Conclusion**

The property is comprised of a single larger parcel containing 3.574-acres or 155,614-square feet. The site topography is generally level and at road grade. The subject is irregular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available and connected to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | Rs-2, Single-Family Residential District |
| Permitted Uses: | One single-family residence, foster homes, CBRFs, family day care, professional home office, hobby kennels |
| **Category** | **Zoning Requirement** |
| Front Setback: | 45-feet from right-of-way |
| Rear Setback: | 35-feet |
| Side Setback: | 25-feet |
| Floodplain Setback: | 75-feet |
| Wetland Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 220' at building |
| Driveway Limit: | 24-feet at right-of-way line and 28-feet at the roadway |
| Source: City of Pewaukee Zoning Code<br>Compiled By: Single Source, Inc. | |

In addition to the Rs-2 Single-Family Residential District, the subject property is zoned F-1, Flood Plain District and LC, Lowland Conservancy District.

Permitted uses in the F-1, Floodplain District include functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes and public utilities, streets/highways and bridges that comply with various subsections of the F-1 zoning classification.

Permitted uses in the LC, Lowland Conservancy District include Non-tilled agricultural uses when conducted in accordance with County Soil and Water Conservation District Standards, Fishing and hunting where allowed by other laws or ordinances. Harvesting of wild crops such as marsh hay, ferns, moss, berries, tree fruits, and tree seeds, Preservation of scenic, historic, native grassed prairies and scientific areas, Public fish hatcheries, Public and private open space areas, Sod farms, Stream bank and lakeshore protection, Sustained yield forestry, Wildlife preserves, and Public works.

The property is considered to be a legal and conforming use in the "before" and "after" condition. The subject property consists of 3.574 acres "before" and will contain 3.574 acres in the "after" condition. The minimum lot size per the Rs-2 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0909999001 | $136,200 | $109,100 | $245,300 | $2,990.25 |
| Equalized Market Value @ 100% | $138,900 | $111,300 | $250,200 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $2,990.25 includes a First Dollar Credit of $66.80. Review of public records indicate no special assessment for the subject property.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned Rs-2 Single-Family Residential District, F-1, Floodplain District, and LC, Lowland Conservancy District. The Rs-2 Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre. The subject property appears to comply with the current Rs-2 zoning standards.

The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA). The LC, Lowland Conservancy District is intended to be used to delineate those land and water areas that exhibit the physical characteristics of wetlands. The subject property appears to comply with both the current F-1 and LC zoning standards.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has an irregular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. Based on the subject's specific location and physical characteristics, it is our opinion that a residential use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics,


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it is our opinion that development of the site with a residential use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

**Conclusion: Highest and Best Use As Though Vacant**

The concluded highest and best use of the subject as though vacant is residential development.

## HIGHEST AND BEST USE AS IMPROVED

**Legal Permissibility**

The subject is a legal and conforming use as improved per the Rs-2 Single-Family Residential, F-1, Floodplain, and LC, Lowland Conservancy zoning code.

**Physical Possibility**

The layout and positioning of the improvements are functional for a single-family residence, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current single-family residence.

**Financial Feasibility**

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active residential market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

**Maximum Profitability**

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

**Conclusion: Highest and Best Use as Improved**

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as a single-family residence. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

**Conclusion: Highest and Best Use – Before Acquisition**

The concluded highest and best use of the subject before the acquisition is continued use as a single-family residence.


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**Conclusion: Highest and Best Use – After Acquisition**

The concluded highest and best use of the subject after the acquisition is continued use as a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 155,614-square feet or 3.574-acres in the "before" condition. The subject is improved with a single-family residence, in the "before" and "after" condition. Following the acquisition the subject site will remain at 155,614-square feet or 3.574-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E are as shown below.

| | | |
|---|---|---|
| Subject Before Acquisition: | 155,614 SF | 3.574-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Temporary Limited Easement: | 247 | 0.00567-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 155,614 SF | 3.574-acres |

**Acquired Parcel**

None.

**Temporary Limited Easement**

One Temporary Limited Easement of 0.00567-acres or approximately 247-square feet will encumber the subject. The Temporary Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road and south of the Spring Creek Bridge. According to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E the existing Spring Creek Bridge structure is to be removed. This Temporary Limited Easement area is for the right to construct a bridge and for slope grading.

**Site Improvements**

There are no site improvements in the Temporary Limited Easement. There are deciduous brush, shrubs and trees located in the Temporary Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

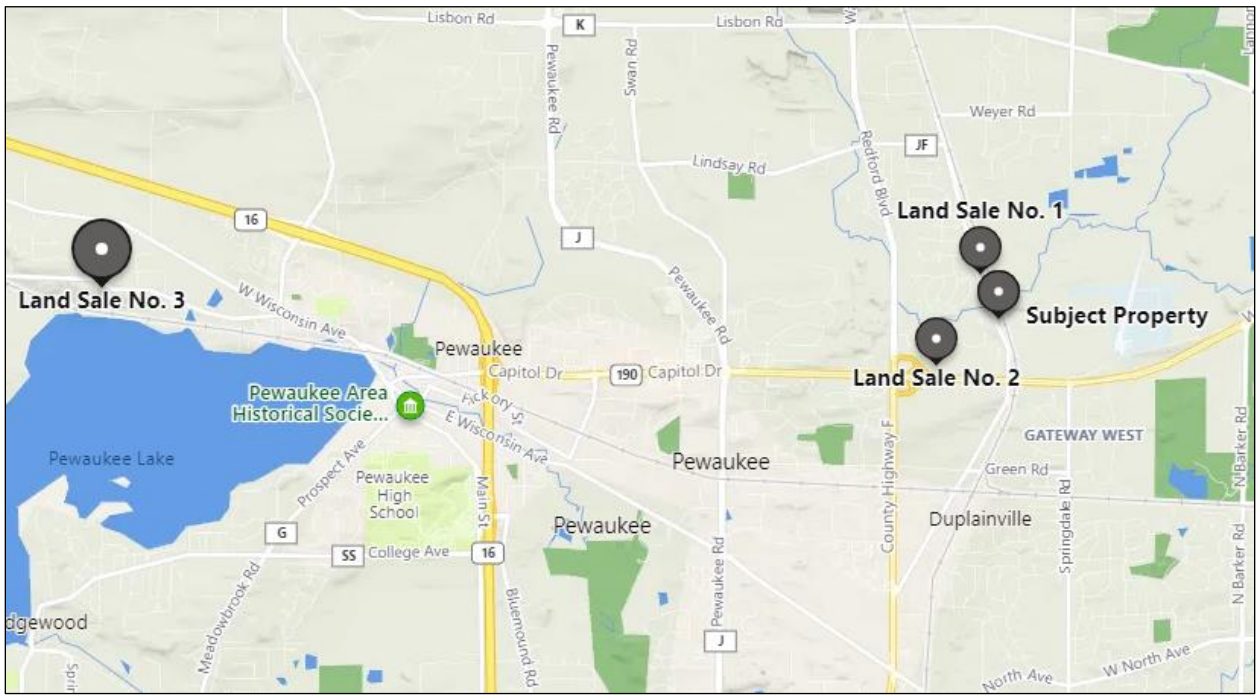
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




### ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $1.46 to $5.44 per square foot of land area. The primary differences between the comparable sales and the subject include utilities, physical characteristics and size of


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the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.

**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W224N3884 Duplainville Rd. Pewaukee, WI | -- | 155,614 | 3.5724 | Rs-2, F-1, LC | -- | -- | |
| 1 | Lot 1 Duplainville Road Pewaukee, WI | Feb-22 | 35,954 | 0.8254 | Rs-3 | $52,500 | $1.46 | $63,606 |
| 2 | Lot 14 Wyndemere Court Pewaukee, WI | Oct-21 | 23,893 | 0.5485 | Rs-5 | $130,000 | $5.44 | $237,010 |
| 3 | Lot 2 Glacier Road Pewaukee, WI | Sep-21 | 91,929 | 2.1104 | Rs-3, UC | $300,000 | $3.26 | $142,153 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation. All sales are less than one year from the date of value and do not require adjustment.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available. Sale Nos. 1 and 3 have sewer service available but not water and require an upward adjustment. Sale No. 2 has both sewer and water available therefore no adjustment is required.

**Size**

The subject site has a size of approximately 3.574-acres or 155,614-square feet of land area. The comparable sales range from 23,893-square feet to 91,929-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale Nos. 1, 2, and 3 are deemed smaller in size compared to the subject site and require varying degrees of downward adjustment.


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**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W224N3884 Duplainville Road. Sale Nos. 1 and 3 are deemed similar in location to the subject site and require no adjustment. Sale No. 2 is located in a pre-planned subdivision and is deemed to have superior location compared to the subject site and requires a downward adjustment.

**Access/Visibility**

The subject property has average access from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale Nos. 1 and 2 are deemed similar in access to the subject site and require no adjustment. Sale No. 3 has below average access because of narrow road width, minimal roadway shoulder and the access point to the site is located at the apex of a curve in the roadway. Therefore, in our opinion an upward adjustment is required.

**Physical Features**

The subject is irregular in shape with generally level topography and at road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system. The northern portion of the subject site is located in a floodplain.

Sale No. 1 abuts the Canadian Pacific rail system and has similar physical features to the subject site, but has a rectangular shape, is not located in a floodplain and requires a downward adjustment. Sale No. 2 does not abut a rail system, has rectangular shape, is not located in a floodplain, which are considered superior features and requires a downward adjustment. Sale No. 3 does not abut a rail system and is rectangular in shape, but has a view of Pewaukee Lake, therefore in our opinion a net negative adjustment is required.

**Zoning and Use**

The subject property is zoned Rs-2, Single-Family Residential District which allows residential uses, F-1, Floodplain District which allows culverts and public utilities, and LC, Lowland Conservancy which allows public works. Sale Nos. 1 and 2 do not have additional zoning. Sale No. 3 has Upland Conservancy but in our opinion does not require adjustment. All sales have similar residential zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 |
|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $52,500 | | $130,000 | | $300,000 |
| Date of Sale | | -- | Feb-22 | | Oct-21 | | Sep-21 |
| Net Site Size (SF) | | 155,614 | 35,954 | | 23,893 | | 91,929 |
| Price/SF | | -- | $ 1.46 | | $ 5.44 | | $ 3.26 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Time/Market Conditions | | | 0.00% | | 0.00% | | 0.00% |
| | | | $ - | | $ - | | $ - |
| Current CE Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| DIRECT ADJUSTMENTS | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 10.0% | | 0.0% | | 10.0% |
| | | | $ 0.15 | | $ - | | $ 0.33 |
| Total Direct Adjustments | | | $ 0.15 | | $ - | | $ 0.33 |
| Adjusted CE Sale Price/SF | | | $ 1.61 | | $ 5.44 | | $ 3.59 |
| PERCENTAGE ADJUSTMENTS | | | | | | | |
| Size (SF) | 155,614 | | 35,954 | | 23,893 | | 91,929 |
| | | | Smaller | | Smaller | | Smaller |
| | | | -20% | | -20% | | -10% |
| | | | $ (0.32) | | $ (1.09) | | $ (0.36) |
| Market Area/Location | Pewaukee | | Similar | | Superior | | Similar |
| | | | 0% | | -20% | | 0% |
| | | | $ - | | $ (1.09) | | $ - |
| Access/Visibility | Average/Average | | Similar | | Similar | | Inferior |
| | | | 0% | | 0% | | 5% |
| | | | - | | - | | 0.18 |
| Other Physical Features | Irregular | | Superior | | Superior | | Superior |
| | | | -15% | | -20% | | -10% |
| | | | (0.24) | | (1.09) | | (0.36) |
| Zoning | Rs-2, F-1, LC | | Rs-3 | | Rs-5 | | Rs-3, UC |
| | | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ (0.56) | | $ (3.26) | | $ (0.54) |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **1.04** | | **2.18** | | **3.05** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 2.09** | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$1.60** | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **155,614** | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 248,982** | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 249,000** | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $1.04 to $3.05 per square foot, with an average of $2.09 per square foot. Primary weight was placed on Sale No. 1 because it is located on Duplainville Road near the subject site and was a very recent sale. Secondary support was provided from Sale Nos. 2 and 3. Based on this analysis, the subject property is estimated to have a unit value at $1.60 per square foot, between all three sales, which are all deemed similar to the subject site.

**Concluded Land Value Before Acquisition**

| | Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|---|
| | 155,614 | X | $1.60 | = | $248,982 |
| **Value Indication (Rounded):** | | | | | **$249,000** |

**Before Value**

The total "before" value is $360,300 ($249,000 - land + $111,300 - improvements, per assessment, rounded).

**Valuation of Temporary Limited Easement**

One Temporary Limited Easement of 0.00567-acres or approximately 247-square feet will encumber the subject site. The Temporary Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road and south of the Spring Creek Bridge. According to Project No. 2370-04-70 Schedule of Lands and Interests Required, Plat Sheet E the existing Spring Creek Bridge structure is to be removed. This Temporary Limited Easement area is for the right to construct a bridge and for slope grading.

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). The duration of the Temporary Limited Easement is the time period between the date of appraisal (February 13, 2022) and the scheduled construction completion date (December 1, 2022) or approximately 10 months. However, the project clean-up may run until November 2023. Therefore, duration of the Temporary Limited Easement is February 13, 2022 to November 1, 2023 or approximately 21 months.

The simplest way to compensate the landowner is through similar land rentals in the market. No residential land rentals were available for analysis. The commercial land rents shown below were obtained through primary market research.


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| No. | Location | Annual Rent/SF | Basis | Commencement Date | Term | Annual Escalation |
|---|---|---|---|---|---|---|
| 1 | Wausau, Wisconsin<br>Confidential | $2.61 | ABS Net | 2016 | 12.5 years | -- |
| 2 | Oconomowoc, Wisconsin<br>Confidential | $1.53 | ABS Net | Aug-18 | 25 years | 1.5% |
| 3 | Sun Prairie, Wisconsin<br>Confidential | $1.10 | ABS Net | 2018 | 15 years | flat |
| 4 | Pewaukee, Wisconsin<br>Confidential | $1.58 | ABS Net | Jun-18 | 15 years | 5% every 5 years |
| 5 | West Allis, Wisconsin<br>Confidential | $2.96 | ABS Net | Nov-16 | 15 years | 9% every 5 years |
| 6 | Oconomowoc, Wisconsin<br>Confidential | $1.53 | ABS Net | Aug-18 | 25 years | 1.5% |
| 7 | Sun Prairie, Wisconsin<br>Confidential | $1.21 | ABS Net | Feb-15 | 20 years | 7.5% every 5 years |
| 8 | Milwaukee, Wisconsin<br>Confidential | $1.58 | ABS Net | Mar-18 | 5 years | Flat |
| 9 | Delafield, Wisconsin<br>Confidential | $1.80 | ABS Net | 2020 | 20 years | 10% in year 10 & 15 |
| 10 | Pewaukee, Wisconsin<br>Confidential | $1.04 | ABS Net | Mar-19 | 15 years | 5% every 5 years |
| 11 | Sheboygan, Wisconsin<br>Confidential | $1.62 | ABS Net | 2020 | 15 years | 10% every 5 years |
| 12 | Brookfield, Wisconsin<br>Confidential | $3.93 | ABS Net | 2017 | 15 years | 5% every 5 years |
| 13 | Menomonee Falls, Wisconsin<br>Confidential | $0.86 | ABS Net | Sep-19 | 20 years | 5.0% Every 5 years |
| | **Average** | **$1.80** | | | | |
| | **Minimum** | **$0.86** | | | | |
| | **Maximum** | **$3.93** | | | | |

**Compiled By: Single Source, Inc.**

The commercial land rental rates range from $0.86 to $3.93 per square foot with an average of $1.80 per square foot.


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In addition to the land rental rates, we have researched equity divided rates to determine an appropriate yield for the subject land.

The following table indicates current safe rates within the market.

| Current Safe Rates 4th Quarter 2021 | Term | Rate |
|---|---|---|
| US Treasury Rate | 6 months | 0.03% |
| US Treasury Rate | 1 year | 0.06% |
| US Treasury Rate | 2 years | 0.16% |
| US Treasury Rate | 3 years | 0.33% |
| Municipal Bonds | 1 year | 0.10% |
| Municipal Bonds | 2 years | 0.12% |
| Corporate Bonds AA/ | 1 year | 2.02% |
| | **Average** | **0.40%** |
| | **Minimum** | **0.03%** |
| | **Maximum** | **2.02%** |
| **Compiled By: Single Source, Inc.** | | |

The rates above would need to be built up to reflect real estate risk and liquidity issues.

**Liquidity**

This adjustment addresses the difference in liquidity between the chosen safe rate investment alternative and the TLE. This adjustment is necessary because most alternative investments can be sold or traded. This would give the investor the opportunity to take advantage of beneficial fluctuations in the market that could potentially allow them to increase their annual rate of return. The TLE will be acquired until the completion of the construction project. The TLE is paid in full for the specified time period and cannot be sold or traded. This non-liquidity is an element that should be considered when estimating a rate of return. The longer the timeframe for the TLE, the greater the need for this adjustment. Typical adjustments for non-liquidity range from 1% to 3%. Taking into consideration the relatively long term of the proposed TLE, an adjustment toward the middle of the range at 2.0% is considered appropriate

**Risk**

This adjustment is tied to the uncertainty associated with the ultimate physical and financial impacts of the TLE on the encumbered areas. The risk is also tied to the impacts of the subsequent construction activities within the TLE, the risk level may be affected by the location and size of the TLE. Smaller TLEs, or TLEs that are situated in remote or unused areas of a property would have less risk. Larger TLEs, or TLEs located in prominent or heavily used areas of a property would have more risk. The adjustment for risk is directly tied to the physical characteristics of the TLE being analyzed, its impact on the affected parcel and is tied to the


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property type or current use of the parcel. The adjustment for risk has the potential to be unique for each parcel. Typical adjustments for risk range from 2% to 4%. Taking into consideration the size and location of the proposed TLE, a 3% adjustment for risk is considered appropriate. Based on these conclusions, the annual rate of return is calculated as follows:

| | |
|---|---|
| Safe Investment Rate | 0.40% |
| Liquidity | + 2.00% |
| Risk | + 3.00% |
| Rate of Return | = 5.40% |

The results of relevant published investor survey data are summarized in the following table.

**SUMMARY OF INVESTOR SURVEYS**
**DISCOUNT RATE**

| Investor Survey | Discount Rate Range | Average | Date of Survey |
|---|---|---|---|
| PWC Real Estate Investor Survey | | | |
| National Development Land Market | 10.00%-25.00% | 16.70% | 2nd Qtr. 2021 |
| Compiled by: Single Source, Inc. | | | |

The subject property is in an average location and is considered to be within a stable market. The survey indicates an overall range of 10.00% to 25.00%. Because of the subject's size, location, and type, it is likely that the appropriate capitalization rate would be below the bottom of the range indicated in the preceding table. The quoted rates are for undeveloped land with many risk factors; therefore, we believe a rate under 10.00 percent would be appropriate for the subject property.

A ground lease was purchased by a local investor. We obtained the pertinent factors of the deal (interest rate, amortization schedule, equity requirement, and capitalization rate) and solved for the Equity Dividend Rate. The yielding rate was 7.21 percent for a remaining three-year term. We believe the subject property would require a rate slightly below this market rate.

We believe an appropriate return rate for the subject property would be 7.0 percent per year, near the built up safe rate and referenced rate. This rate is applied for the time period both prior to construction and under construction, approximately 21 months.

Utilizing the unit value of $1.60 per square foot would indicate a land value of $400 ($1.60/SF x 247 SF = $396, rounded to $400) which is the basis of our Temporary Limited Easement calculation.

**Discount Factor**

The TLE payment will be paid to the property owner as a lump sum rather than annual installments. Therefore, an annual return on investment must be identified to determine a discount factor used to calculate the present value (lump sum payment) of future annual rental payments for the use of the land contained within the TLE. The calculated rate is 7 percent and yields the following value.


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**Acquired Land Value Conclusion – Temporary Limited Easement**

**Acquired Land Value**
**Temporary Limited Easement**

| Year | Months | Land Value | Discount Rate | PV Factor | Value |
|---|---|---|---|---|---|
| 1 | 12 | $400 | 7.00% | 1.0000 | $28.00 |
| 2 | 9 | $400 | 7.00% | 0.9345 | $19.62 |
| TOTAL | | | | | $47.62 |
| **Value Indication (Rounded):** | | | | | **$100.00** |

**Valuation of Site Improvements**

There are no site improvements in the Temporary Limited Easement. There are deciduous brush, shrubs and trees located in the Temporary Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $360,300 ($249,000 - land + $111,300 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $360,300 |
| Market Value Following Acquisition: | $360,300 |
| Loss in Market Value: | $0 |
| Temporary Limited Easement: | $100 |
| **Total Damages (Rounded):** | $100 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$100** |
| **Total:** | **$100** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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# ADDENDUM B
# SUBJECT PHOTOGRAPHS


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SUBJECT PROPERTY LOOKING EAST



TLE LOOKING NORTH


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TLE AND BRIDGE LOOKING SOUTH



TLE AND BRIDGE LOOKING NORTH


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | Lot 1 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.8254-acres or 35,955-square feet |
| Zoning: | Rs-3 Single-Family Residential District |
| Topography: | Generally level |
| Utilities: | Sewer available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0868996001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 11, 2022 |
| Sale Price: | $52,500 |
| Sale Price/SF: | $1.46 |
| Sale Price/Acre: | $63,606 |
| Grantor: | H&F Properties, LLC |
| Grantee: | Tyler Morgan |
| Document No.: | 4651813 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor Anthony Kersten of Cherry Home Realty – listing agent, Sarah Keily of Shorewest – selling agent |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 1 of Certified Survey Map No. 2514, recorded in Waukesha County Register of Deeds on February 25, 1976,in Volume 18 of Certified Survey Maps, on Pages 173, 174and 175, as Document No. 941058, part of the Southwest 1/4of the Southeast 1/4, and the Southeast 1/4 of the Southwest1/4 of Section 1, Township 7 North, Range 19 East, in the City of Pewaukee, County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the east side of Duplainville Road near the subject site and just north of Capitol Drive and south of Weyer Road. The property has average access and visibility with generally level topography. The property is zoned Rs-3 and allows for single-family residential uses. Sewer service is available not water. The property was listed for sale twice in the past two years. The first listing was March 20, 2020 for $65,000, which expired after 184 days. The second listing began February 18, 2021 for an asking price of $65,000. Days on Market (DOM) reached 329 days before the sale at $52,500. Based on a discussions with the listing and selling agents the buyers intend to build a single-family house. The listing agent indicated that the sale price was below the list price because the buyer will need to extend water service from the west side of Duplainville Road to the east side where the property is located. The sale is located

**Parcel Map**





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## LAND SALE NO. 2



**Property Identification**

| | |
|---|---|
| Location: | Lot 14 Wyndemere Court<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.5485-acres or 23,893-square feet |
| Zoning: | Rs-5 Single-Family Residential District |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0910071 |

**Sale Data**

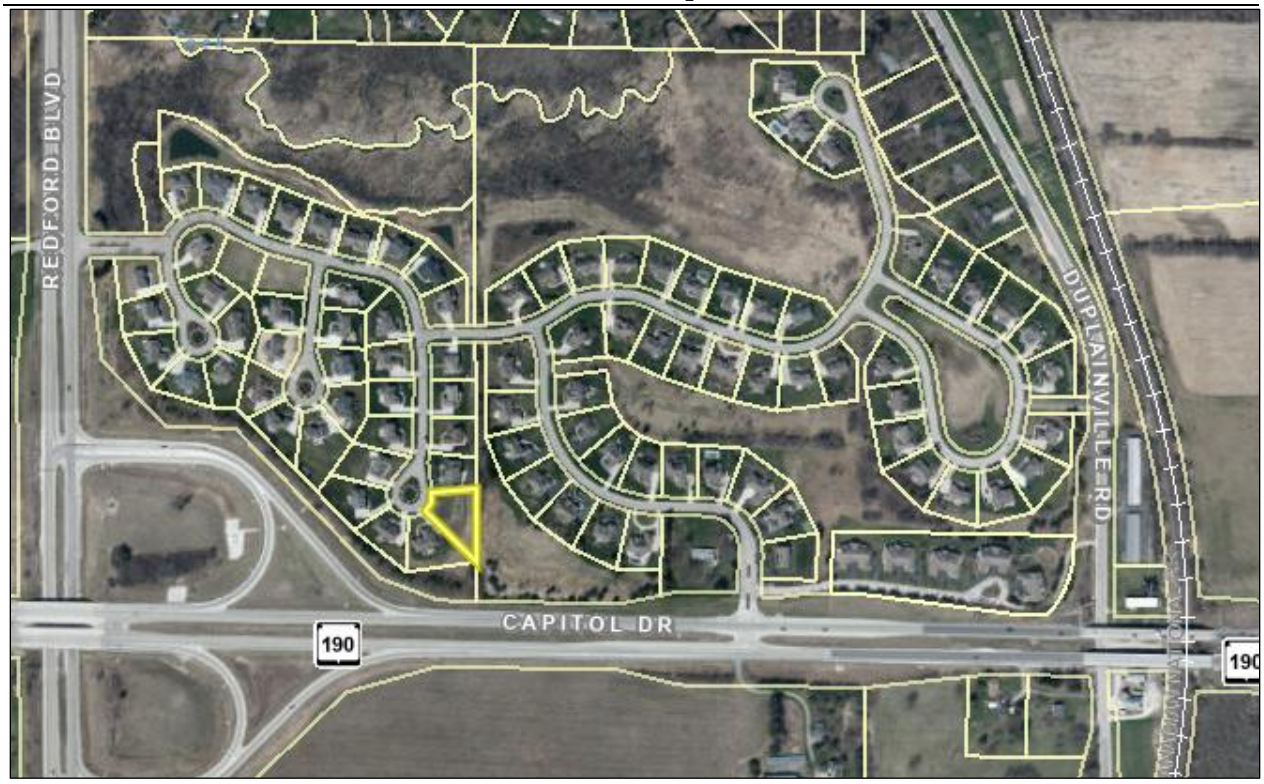
| | |
|---|---|
| Date of Sale: | October 29, 2021 |
| Sale Price: | $130,000 |
| Sale Price/SF: | $5.44 |
| Sale Price/Acre: | $237,010 |
| Grantor: | D&B Mierow, LLC |
| Grantee: | Denali Realty Group, LLC |
| Document No.: | 4631192 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot Fourteen (14), together with an undivided interest inOutlots 1, 2, 3, 4 and 5, all in Wyndemere, being aSubdivision of a part of the Northwest One-quarter (1/4) andSouthwest One-quarter (1/4) of the Northwest One-quarter(1/4) of Section Twelve (12), Township Seven (7) North,Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, and an affidavit of Correction recorded on June 8, 2005, as Document No. 3283892. |

**Comments:**


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The parcel is located along the east side of Wyndemere Court, just west of Duplainville Road, east of Redford Boulevard, and north of Capitol Drive. The property has average access and visibility with generally level topography. The property is zoned Rs-5 and allows for single-family residential uses. Water and sewer service are available.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | Lot 2 Glacier Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 2.1104-acres or 91,929-square feet |
| Zoning: | Rs-3 Single-Family Residential District/UC, Upland Conservancy |
| Topography: | Generally Level, downwards sloping to south, wooded |
| Utilities: | Sewer Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0890999006 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | September 30, 2021 |
| Sale Price: | $300,000 |
| Sale Price/SF: | $3.26 |
| Sale Price/Acre: | $142,153 |
| Grantor: | Gary R. Klatt |
| Grantee: | Andrew and Candace Johnson |
| Document No.: | 4624166 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot 2 and Outlot 2 of Certified Survey Map No. 11922, being a redivision of all of Lots 1, 2 and 3 of Certified Survey Map No.8822 being a division of Lot 2 of Certified Survey Map No.4581 being part of the Southeast 1/4 of the Southwest 1/4Section 6 and the Northeast 1/4 of the Northwest 1/4 of Section 7, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on October 15, 2019 in Book 120, Pages 301-305, as Document No. 4428613. |

**Comments:**


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The parcel is located along the south side of Glacier Road, just east of North Shore Drive and south of Hwy 16. The property has below-average access and visibility with generally level topography with downward sloping to the south. The property is bifurcated with a non-contiguous area located on Pewaukee Lake. Parcel 999011 and a rail system separate these two areas of the parcel. The property is zoned Rs-3 and Upland Conservancy and allows for single-family residential uses. Sewer service is available not water. The property was marketed as having a view of Pewaukee Lake.

**Parcel Map**





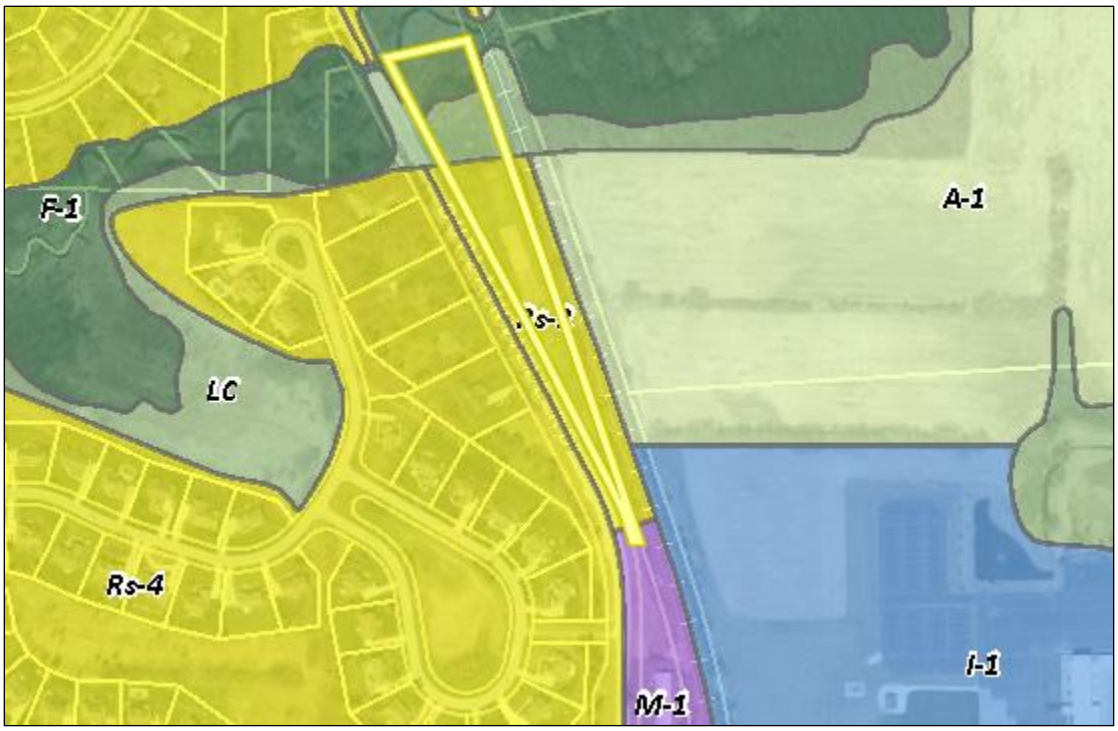
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**ADDENDUM D**

**ZONING MAP & CODE**


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 30 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0406 Rs-2, SINGLE-FAMILY RESIDENTIAL DISTRICT**
The Rs-2, Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre.
a. Permitted Principal Uses
(1) One Single-family dwelling with attached or detached garages as defined in section 17.1402.
(2) Foster homes and community living arrangements, including CBRFs, as set forth in Wisconsin Statutes.
(3) Family day-care home as set forth in Section 66.1017 of Wisconsin Statutes.
b. Permitted Accessory Uses
(1) Home occupations and professional home offices as defined herein.
(2) Yard and gardening equipment storage structures not exceeding 192 square feet in area. (Also see section 17.0700).
(3) Hobby Kennels. (Cr. 13-09)
c. Repealed 13-09
d. Lot Area and Width
(1) Lots shall have a minimum area of 2.0 net acres.
(2) Lots shall have a width of not less than 220 feet at the building setback line.
e. Building Height and Size
(1) No principal building or parts of a principal building shall exceed 35 feet in height.
(2) No accessory structure shall be more than 18 feet in height.
(3) The minimum floor area of one or two-story dwelling unit shall be as follows:


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| Number of Bedrooms Per Dwelling | Unit Minimum | Total Area Minimum First Floor Area |
|---|---|---|
| One | 1,200 square feet | 1,200 square feet |
| Two | 1,300 square feet | 1,200 square feet |
| Three | 1,500 square feet | 1,200 square feet |
| Four or More | 1,700 square feet | 1,200 square feet |

No bedroom shall be less than 100 square feet in area exclusive of closets.
(4) The sum total of the first floor area of the principal building and all accessory buildings shall not exceed 6.0 percent of the lot area.
f. Setback and Yards
(1) There shall be a minimum building (or street) setback of 45 feet from the right-of-way of all public streets, roads, or highways.
(2) There shall be a side yard on each side of all structures not less than 25 feet in width.
(3) There shall be a rear yard of not less than 35 feet.
(4) There shall be a minimum building setback of 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland.
(Also see sub-section 17.0435)
(5) There shall be a minimum set back of 100 feet from any abutting property for any building primarily used for housing or sheltering animals.
g. Parking Space
See Section 17.0600
h. Minimum Utility Service
Electricity, approved private water supply, and an approved on-site soil absorption sanitary sewage disposal system. All on-site soil absorption sanitary disposal systems must be approved by the Waukesha County Health and Human Services Department prior to installation. Note: If public sanitary sewerage and/or water supply facilities are available to the property, no on-site sewage disposal system or private water supply system will be permitted to be constructed.

**CITY OF PEWAUKEE MUNICIPAL CODE 91 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0435 F-1, FLOODPLAIN DISTRICT. (Rep. & Rec. 08-12, 12-12, 14-14)**
The F-1, Floodplain District is intended to preserve in essentially open space and natural land use, through land use zoning regulation, lands which are unsuitable for intensive development purposes due to poor natural soil conditions and periodic flood inundation and shall include all land and water area lying within the designated Special Flood Hazard Area (SFHA) which encompasses the delineated forecast 100 - year recurrence interval (one percent chance in a year) floodplain as shown on Federal Emergency Management Agency (FEMA) maps (also called the 'regional flood' or 'base flood') and those land and water areas designated by FEMA as 'Zone A' areas. Also included within the F-1, Floodplain are those areas adjacent to the base flood designated by the Wisconsin Department of Natural Resources (WisDNR) as Flood Storage Districts (FSDs). The proper regulation of these areas will serve to maintain and improve water quality, prevent flood damage, protect wildlife habitat, and prohibit the location of walled structures, as defined herein, on lands, which are generally not suitable for such use due to possible flooding.
a. FINDING OF FACT
Uncontrolled development and use of the floodplains and rivers of the City would impair the public health, safety, convenience, general welfare and tax base.
b. STATEMENT OF PURPOSE


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This ordinance is intended to regulate floodplain development to:
(1) Protect life, health and property;
(2) Minimize expenditures of public funds for flood control projects;
(3) Minimize rescue and relief efforts undertaken at the expense of the taxpayers;
(4) Minimize business interruptions and other economic disruptions;
(5) Minimize damage to public facilities in the floodplain;
(6) Eliminate the occurrence of future flood blight areas in the floodplain;
(7) Eliminate the victimization of unwary land and homebuyers;
(8) Prevent increases in flood heights that could increase flood damage and result in conflicts between property owners; and
(9) Eliminate development in a floodplain, recognizing that there may be existing developed land lying within the delineated F-1, Floodplain District and there may be the need to locate public utilities or streets within the F-1, Floodplain District.
c. TITLE
This sub-section of the City Zoning Ordinance shall be commonly known as the 'Floodplain Ordinance' for the City of Pewaukee, Wisconsin.
d. STATUTORY AUTHORIZATION
This sub-section of the City Zoning Ordinance is adopted pursuant to the authorization in Sections 62.23 and 87.30 of Wisconsin Statutes as well as Ch. NR 116 of the Wisconsin Administrative Code which is included as Appendix 5 in this zoning ordinance.
e. GENERAL PROVISIONS
(1) AREAS TO BE REGULATED
This ordinance regulates all areas that would be covered by the regional flood or base flood as shown on the Flood Insurance Rate Map (FIRM) or other maps approved by DNR such as the WisDNR Flood Storage Districts (FSDs). Base flood elevations (BFE) are derived from the flood profiles in the Flood Insurance Study (FIS) and are shown as AE, A1-30, and AH Zones on the FIRM. Other regulatory zones are displayed as A and AO zones. Regional Flood Elevations (RFE) may be derived from other studies. If more than one map or revision is referenced, the most restrictive information shall apply.
(2) OFFICIAL MAPS & REVISIONS
The boundaries of the SFHA are designated on the maps listed in (3) below. Any change to the BFE or any changes to the boundaries of the floodplain or floodway in the FIS or on the FIRM must be reviewed and approved by the DNR and FEMA through the Letter of Map Change process (see 17.0435t Amendments) before it is effective. No changes to RFE's on non-FEMA maps shall be effective until approved by the DNR. These maps, profiles and revisions are on file in the City Planning, Public Works or Building Inspection offices at Pewaukee City Hall and may also be available in the Waukesha County Park and Land Use Department offices in the Courthouse. If more than one map or revision is referenced for the same area, the most restrictive information shall apply.
(3) OFFICIAL MAPS AND PROFILES: Based on the FIS:
Official FIRMs and Profiles Encompassing the City of Pewaukee are FIRM panel numbers:55133C0181G, 55133C0182G, 55133C0183G, 55133C0184G, 55133C0191G, 5133C0192G, 55133C0201G, 55133C0202G, 55133C0203G, 55133C0204G, 55133C0206G, 55133C0208G, 55133C0211G, 55133C0212G, 55133C0213G, 55133C0214G, 55133C0216G dated November 5, 2014; with corresponding profiles that are based on the Flood Insurance Study (FIS) dated February 9, 2014, and numbered: 55133CV001C, 55133CV002C, 55133CV003C. (Approved by: WisDNR and/or FEMA)
(4) MAPS BASED ON OTHER STUDIES:
Flood Storage Map. Also included within the City's F-1, Floodplain District, are the flood storage districts as depicted on Waukesha County Wisconsin Flood Storage District Map Panels 3, 5 and 6, based on a WisDNR study dated November 5, 2014. Prepared and Approved by WisDNR.
(5). ESTABLISHMENT OF FLOODPLAIN ZONING DISTRICT
The F-1, Floodplain as defined in this City Zoning Ordinance includes:
All land and water area lying within the boundary of the SFHA as defined above plus any FSD.
(6) LOCATING FLOODPLAIN BOUNDARIES


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Discrepancies between boundaries on the official floodplain zoning map and actual field conditions shall be resolved using the criteria in (a) or (b) below. If a significant difference exists, the map shall be amended according to section 17.0435t Amendments. The zoning administrator can rely on a boundary derived from a profile elevation to grant or deny a land use permit, whether or not a map amendment is required. The zoning administrator shall be responsible for documenting actual pre-development field conditions and the basis upon which the district boundary was determined and for initiating any map amendments required under this section. Disputes between the zoning administrator and an applicant over the district boundary line shall be settled according to section 17.1007 and the criteria in (a) and
(b) below. Where the flood profiles are based on established base flood elevations from a
FIRM, FEMA must approve any map amendment or revision pursuant to section 't' Amendments of this sub-section.
(a) If flood profiles exist, the map scale and the profile elevations shall determine the district boundary. The regional or base flood elevations shall govern if there are any discrepancies.
(b) Where flood profiles do not exist for projects, the location of the boundary shall be determined by the map scale.
(7) REMOVAL OF LANDS FROM FLOODPLAIN
Compliance with the provisions of this ordinance shall not be grounds for removing land from the floodplain unless it is filled at least two feet above the regional or base flood elevation, the fill is contiguous to land outside the floodplain, and the map is amended pursuant to section 't' Amendments of this sub-section.
In addition, no floodplain may be filled and no walled structure built within the SFHA or FSDs with the exception of the construction of public utility and transportation facilities required by a unit/agency of government, or an approved structure requiring water frontage which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District unless:
(a) Said land has been previously filled prior to the effective date of the adoption on this amendment so that the elevation of the lowest floor (including basement) of any existing or proposed walled structure or building is at least two feet above the base flood elevation;
(b) The proposed filled land does not form an island and can be accessed from other surrounding lands without entering the F-1, Floodplain District;
(c) There is an area of land outside the F-1, Floodplain District but adjacent to and on the same property as the proposed filled land equal to at least four (4) times the areal extent and volume of the proposed filled area that is added to the F-1, Floodplain District based on plans approved by the City Plan Commission;
(d) The height of the downstream base flood is not increased by proposed fill;
(e) The floodplain boundaries shown on all official maps are amended pursuant to section 'n' of this sub-section; and
(f) A study is prepared and certified by a state registered professional engineer, establishing that:
i. The fill, lowest floor and floodproofing elevation shall have no effect upon the base flood elevation either upstream or downstream and are in compliance with this ordinance; or
ii. The fill, lowest floor and floodproofing elevations may have the effect of raising the base flood elevation either upstream or downstream if otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Conditional Letter of Map
Revision (CLOMR) prior to issuance of any local permit(s); or
iii. The fill, lowest floor and floodproofing elevations may have the effect of lowering the base flood elevation either upstream or downstream and are otherwise in compliance with this ordinance, in which case the property owner must also contact FEMA to request and receive an approved Letter of Map
Change (LOMC) prior to issuance of any local permit(s). Please also see subsection17.1108b and Appendix 5.
(8) COMPLIANCE
Any development or use within the areas regulated by this ordinance shall be in compliance with the terms of this ordinance, and other applicable local, state, and federal regulations.
(9) MUNICIPALITIES AND STATE AGENCIES REGULATED
Unless specifically exempted by law, all cities, villages, towns, and counties are required to comply with this ordinance and obtain all necessary permits. State agencies are required to comply if s.13.48(13) of Wisconsin


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Statutes applies. The construction, reconstruction, maintenance and repair of state highways and bridges by the Wisconsin Department of Transportation is exempt when s.30.2022 of Wisconsin Statutes applies.
(10) ABROGATION AND GREATER RESTRICTIONS
(a) This ordinance supersedes all the provisions of any City ordinance enacted under
s. 62.23 or s.87.30 of Wisconsin Statutes., which relate to floodplains. A more restrictive ordinance shall continue in full force and effect to the extent of the greater restrictions, but not otherwise.
(b) This ordinance is not intended to repeal, abrogate or impair any existing deed restrictions, covenants or easements. If this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail.
(11) INTERPRETATION
In their interpretation and application, the provisions of this ordinance are the minimum requirements liberally construed in favor of the City and are not a limitation on or repeal of any other powers granted by the Wisconsin Statutes. If a provision of this ordinance or ch. NR 116, Wis. Adm. Code is unclear, the provision shall be interpreted in light of the standards in effect on the date of the adoption of this ordinance or in effect on the date of the most recent text amendment to this ordinance.
(12) WARNING AND DISCLAIMER OF LIABILITY
The flood protection standards in this ordinance are based on engineering experience and scientific research related to a 100 year recurrence interval flood event (one percent change in any year). Larger floods may occur or the flood height may be increased by man-made or natural causes. This ordinance does not imply or guarantee that non-floodplain areas or permitted floodplain uses will be free from flooding and flood damages. This ordinance does not create liability on the part of, or a cause of action against, the city or any officer or employee thereof for any flood damage that may result from reliance on this ordinance.
(13) SEVERABILITY
Should any portion of this ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected.
(14) ANNEXED AREAS
The Waukesha County floodplain zoning provisions in effect on the date of annexation of town lands shall remain in effect and shall be enforced by the city for all annexed areas until the city adopts and enforces an ordinance which meets the requirements of ch. NR 116, Wis. Adm. Code and 44 CFR 59-72, National Flood Insurance Program (NFIP). These annexed lands are described on the city's official zoning map. County floodplain zoning provisions are incorporated by reference for the purpose of administering this section and are on file in the office of the city zoning administrator. All plats or maps of annexation shall show the regional or base flood elevation and the floodway location.

f. GENERAL STANDARDS APPLICABLE TO ALL FLOODPLAIN DISTRICTS (Also see section 17.0200 of this ordinance)
The City Plan Commission and planning staff shall review all applications for land development or land division pursuant to City codes and ordinances to determine whether proposed buildings and building sites will be reasonably safe from flooding. No new walled buildings or structures, including manufactured mobile homes and walled enclosures, shall be allowed within or within a distance of 75 feet from the boundary of a base flood floodplain as defined herein except as set forth in sections 'k(3)' and 'l(2)' of this sub-section, and subsection 17.0436. All new construction and permitted structural improvements to existing buildings/structures within a floodplain shall be designed or modified so as to adequately anchor such structure or building to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads; be constructed with materials resistant to flood damage; be constructed by methods and practices that minimize flood damages; and be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding. In addition to the requirements of Chapter 18 (Land Division Ordinance) of City Codes and Ordinances, subdivision of land shall be reviewed for compliance with the above standards and no newly created building parcel less than ten (10) acres in size shall be located within a base flood floodplain. (see section 'l (2)' of this sub-section). Adequate drainage shall be provided to reduce exposure to flood hazards and all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damages. All proposed land development plans, including land divisions and


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manufactured mobile home parks shall include BFE data for any land division or development that meets the definition within this zoning ordinance or Chapter 18 of the City
Codes and Ordinances. (See www.cityofpewaukee.us)
g. HYDRAULIC AND HYDROLOGIC ANALYSES
(1) No building or development shall:
(a) Obstruct natural storm water flow, defined as development which blocks the conveyance of floodwaters by itself or with other development, causing any increase in the regional or base flood height; or
(b) Cause any increase in the regional or base flood height due to floodplain storage area lost.
(2) The zoning administrator shall deny permits if it is determined the proposed development will obstruct flow or cause any increase in the regional or base flood height, based on the officially adopted FIRM or other adopted map, unless the provisions of section 't' Amendments of this sub-section are met.
h. WATERCOURSE ALTERATIONS
No land use permit to alter or relocate a watercourse in a mapped floodplain shall be issued until the local official has notified in writing all adjacent municipalities, the WisDNR (Department) and FEMA regional offices, and required the applicant to secure all necessary state and federal permits. The standards of section 'g' of this sub-section must be met and the flood carrying capacity of any altered or relocated watercourse shall be maintained. As soon as is practicable, but not later than six months after the date of the watercourse alteration or relocation and pursuant to section 't' Amendments of this sub-section, the City shall apply for a Letter of Map Revision (LOMR) from FEMA. Any such alterations must be reviewed and approved by FEMA and the WisDNR through the LOMC process.
i. CHAPTER 30, 31of WISCONSIN STATUTES DEVELOPMENT
Approved development which requires a permit from the Department, under chs. 30 and 31 of Wisconsin Statutes, such as docks, piers, wharves, bridges, utilities, public streets/highways, culverts, dams and navigational aids, may be allowed if the necessary permits are obtained and any amendments to the floodplain zoning ordinance are made according to section 't' Amendments of this sub-section.
j. PUBLIC OR PRIVATE CAMPGROUNDS
Public or private campgrounds, as defined herein, shall not be located within the F-1,
Floodplain District.
k. PERMITTED USES IN THE F-1, FLOODPLAIN DISTRICT
The following open space uses are allowed in the F-1, Floodplain District if they are not prohibited by any other ordinance; they meet the standards in sections 'l' and 'm' of this sub-section; and, all permits or certificates have been issued according to section 'p(1)' of this sub-section.
(1) Non-structural agricultural uses, such as: general farming, outdoor plant nurseries, horticulture, viticulture and wild crop harvesting.
(2) Non-structural industrial and commercial uses, such as loading areas, parking areas and airport landing strips.
(3) Non-structural recreational uses, such as golf courses, tennis courts, archery ranges, picnic grounds, boat ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting, trap and skeet activities, hunting and fishing areas and hiking and horseback riding trails, subject to the fill limitations of section 'l(5)' of this subsection.
(4) Uses or non-walled structures accessory to open space uses, or classified as historic structures that comply with sections 'l' and 'm' of this sub-section.
(5) Extraction of sand, gravel or other earth materials that comply with section 'l(5)' of this sub-section.
(6) Functionally water-dependent uses, such as docks, piers or wharves, dams, flowage areas, culverts, navigational aids as well as river crossings of transmission lines, and pipelines that comply with chs. 30 and 31 of Wisconsin Statutes.
(7) Public utilities, streets/highways and bridges that comply with section 'l(4)' of this subsection.
l. STANDARDS FOR DEVELOPMENT IN THE F-1, FLOODPLAIN DISTRICT
Any existing or proposed development within the SFHA and FSDs must adhere to the requirements of this ordinance.
(1) GENERAL
(a) Any permitted development in the SFHA shall comply with section 'f' of this subsection and have a low flood damage potential.


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(b) Applicants shall provide the following data to determine the effects of the proposal according to sections 'g' and 'q' of this sub-section:
i. A cross-section elevation view of the proposal, perpendicular to the watercourse, showing if the proposed development will obstruct flow; or
ii. An analysis performed by a state registered professional engineer calculating the effects of the proposal on regional or base flood height.
(c) The zoning administrator shall deny the permit application if the project will cause any increase in the flood elevations upstream or downstream, based on the data submitted for (b) above.
(2) STRUCTURES
Structures accessory to permanent open space uses or functionally dependent on a waterfront location such as an approved boathouse or boat dock may be allowed by permit if the structures comply with all the following criteria:
(a) Not designed for human habitation, does not have a high flood damage potential and is constructed to minimize flood damage;
(b) Has a minimum of two openings on different walls having a total net area not less than one square inch for every square foot of enclosed area, and the bottom of all such openings being no higher than one foot above grade. The openings shall be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Must be anchored to resist flotation, collapse, and lateral movement;
(d) Mechanical and utility equipment must be elevated or flood proofed above the flood protection elevation; and
(e) Must not obstruct flow of flood waters or cause any increase in flood levels during the occurrence of the regional or base flood.
(3) FLOODPROOFING FOR NON-RESIDENTIAL STRUCTURES
Actions or measures designed to reduce or prevent flood damage must be taken for those buildings or structures which cannot be removed from the floodplain or, if substantially damaged, must be erected within the floodplain, including but not limited to the following: structural modification; installation of special equipment such as water extraction equipment; addition of operation and management safeguards; supplemental underpinning and reinforcement of floors; reinforcement of walls; sealing of doors and windows and other exterior openings; anchoring of buoyant tanks and material; erection of watertight bulkheads, windows and doors; waterproof treatment of exposed wood; elevation of flood vulnerable utilities and mechanical equipment; use of masonry construction with waterproof mortar; installation of submersible sump pumps; placement of backflow and automatic swing check valves; installation of wire reinforced glass; placement of drain plugs and flood drain pipes; and removal of anything that will float or be damaged by water or flood borne debris. These and any other floodproofing measures should be extended to at least two feet above the BFE. Most of the aforementioned measures require a building permit issued by the City Building Inspector. All floodproofing measures must be certified by a registered professional engineer or architect.
(4) PUBLIC UTILITIES, STREETS AND BRIDGES
Public utilities, streets and bridges may be allowed by permit, if:
(a) Adequate floodproofing measures are provided to the flood protection elevation; and
(b) Construction meets the development standards of section 'g' of this sub-section.
(5) FILL OR DEPOSITION OF MATERIALS
No floodplain may be filled and no walled structure built within the F-1, Floodplain as defined herein with the possible exception of the construction of required public utility and transportation facilities and structures requiring a waterfront location, which would require adherence to regulations as set forth in section 'l' of this subsection and by FEMA and NR116. Compliance with the provisions of this ordinance shall not be grounds for removing land from the F-1, Floodplain District. PLEASE SEE
SUBSECTION 17.0435e(7), ABOVE as well as subsection 17.1108b and Appendix 5.
m. PROHIBITED USES
All uses not listed as permitted uses in section 'k' of this sub-section are prohibited, including the following uses:
(1) Walled structures, structures with high flood damage potential, or those not associated with permanent open-space uses, including mobile homes and recreation vehicles;
(2) Stored materials that are buoyant, flammable, explosive, injurious to property, water quality, or human, animal, plant, fish or other aquatic life;
(3) Uses not in harmony with or detrimental to uses permitted in the adjoining zoning districts;


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(4) Any private or public on-site wastewater treatment/disposal system, except portable latrines that are removed prior to flooding and systems associated with recreational areas and Department-approved campgrounds that meet the applicable provisions of local ordinances and ch. SPS 383 of the Wisconsin Administrative Code;
(5) Any public or private wells which are used to obtain potable water, except those for recreational areas that meet the requirements of local ordinances and chs. NR 811 and NR 812 of the Wisconsin Administrative Code;
(6) Any solid, liquid, or hazardous waste disposal sites;
(7) Any wastewater treatment ponds or facilities, except those permitted under s. NR
110.15(3)(b) of the Wisconsin Administrative Code;
(8) Any sanitary sewer or water supply lines, except those to service existing or proposed development located outside the floodway which complies with the regulations set forth herein;
(9) Storm water management retention or detention ponds;
(10) Any use requiring excavation or grading except those uses listed in section 'g' of this sub-section;
(11) Storage of materials such as compost, mulch, gravel, soil, fill (clean or unclean).
n. FLOOD STORAGE DISTRICT (FSDs) OF THE F-1, FLOODPLAIN
A 'FSD' is that portion of the floodplain where storage of floodwaters has been taken into account and is relied upon to reduce the regional or base flood discharge. The FSD protects the flood storage areas and assures that any development in the storage areas will not decrease the effective flood storage capacity which would cause higher flood elevations.
(1) APPLICABILITY
The provisions of this section apply to all areas within the FSDs, as shown on the official floodplain zoning maps.
(2) PERMITTED USES
Any use or development which occurs in a flood storage district must meet the applicable requirements in section 'l' of this sub-section.
o. NON-CONFORMING STRUCTURES AND USES IN THE F-1, FLOODPLAIN DISTRICT
If these standards conform to s. 62.23(7)(h) of Wisconsin Statutes, they shall apply to all modifications or additions to any nonconforming use or structure and to the use of any structure or premises which was lawful before the passage of this ordinance or any amendment thereto.
(1) GENERAL
The existing lawful use of a structure or its accessory use which is not in conformity with the provisions of this ordinance may continue subject to the following conditions:
(a) No modifications or additions to a nonconforming use or structure shall be permitted unless they comply with this ordinance. The words "modification" and "addition" include, but are not limited to, any alteration, structural repair, rebuilding or replacement of any such existing use, structure or accessory structure or use.
Maintenance is not considered a modification and includes painting, decorating, paneling and other nonstructural components and the maintenance, repair or replacement of existing private sewage or water supply systems or connections to public utilities. Any costs associated with the repair of a damaged structure are not considered maintenance. For the purposes of this subsection of the zoning ordinance, the construction of a deck that does not exceed 200 square feet and that is adjacent to the exterior wall of a principal structure is not a modification or addition. The roof of the structure may extend over a portion of the deck in order to provide safe ingress and egress to the principal structure.
(b) If a nonconforming use or the use of a nonconforming structure is discontinued for
12 consecutive months, it is no longer permitted and any future use of the property, and any structure or building thereon, shall conform to the applicable requirements of this ordinance;
(c) The city shall keep a record which lists all nonconforming uses and nonconforming structures, their present equalized assessed value, the cost of all modifications or additions which have been permitted, and the percentage of the structure's total current value those modifications represent;
(d) No modification or addition to any nonconforming structure or any structure with a nonconforming use, which over the life of the structure would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section. The cost of elevating the lowest floor of a nonconforming building or a building with a nonconforming use to the flood protection elevation is excluded from the 50% provisions of this paragraph;


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(e) No maintenance to any nonconforming structure or any structure with a nonconforming use, the cost of which would equal or exceed 50% of its present equalized assessed value, shall be allowed unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(f) If on a per event basis the total value of the work being done under (d) and (e) equals or exceeds 50% of the present equalized assessed value, the work shall not be permitted unless the entire structure is permanently changed to a conforming structure with a conforming use in compliance with the applicable requirements of this ordinance. Contiguous dry land access must be provided for residential and commercial uses in compliance with section 'l' of this sub-section.
(g) Except as provided in section 'l' of this sub-section, if any nonconforming structure or any structure with a nonconforming use is destroyed or is substantially damaged, it cannot be replaced, reconstructed or rebuilt unless the use and the structure meet the current ordinance requirements. A structure is considered substantially damaged if the total cost to restore the structure to its pre-damaged condition equals or exceeds 50% of the structure's current equalized assessed value.
(h) For nonconforming buildings that are substantially damaged or destroyed by a non-flood event, the repair or reconstruction of any such nonconforming building shall be permitted in order to restore it to the size and use in effect prior to the damage event, provided that the requirements below are met and all required permits have been granted prior to the start of construction.
(2) RESIDENTIAL STRUCTURES
(a) Structures shall have the lowest floor, including basement, elevated to or above the base flood elevation using fill, pilings, columns, posts or perimeter walls. Perimeter walls must meet the requirements of section 'o(4)' of this sub-section.
(b) Structures shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy and shall be constructed with methods and materials resistant to flood damage.
(c) Structures shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or elevated so as to prevent water from entering or accumulating within the components during conditions of flooding.
(d) Owners of structures in the SFHA must obtain, review and utilize any flood data available from a federal, state or other source.
(e) Structures in the SFHA with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section and adequate drainage paths or swales shall be placed around the structures on slopes to guide flood waters around and away from the structure without being diverted to adjacent properties without permission.
(3) NON-RESIDENTIAL STRUCTURES
(a) Structures shall meet the requirements of section 'o(2) a-e' of this sub-section.
(b) Structures shall either have the lowest floor, including basement, elevated to or above the regional or base flood elevation; or, together with attendant utility and sanitary facilities, shall meet the standards in section 'o(4)(a) and o(4)(b)' of this sub-section. A registered professional engineer or architect must certify that the perimeter walls shall be constructed so as to protect the structure.
(c) Structures in AO Zones with no elevations specified, shall have the lowest floor, including basement, meet the standards in section 'l' of this sub-section.
(4) FLOODPROOFING STANDARDS FOR NONCOMFORMING STRUCTURES OR USES – NON-RESIDENTIAL STRUCTURES
(a) No permit or variance shall be issued for a non-residential structure designed to be watertight below the regional or base flood elevation until the applicant submits a plan certified by a registered professional engineer or architect that the floodproofing measures will protect the structure or development to the flood protection elevation and submits a FEMA Floodproofing Certificate.
(b) For a structure designed to allow the entry of floodwaters, no permit or variance shall be issued until the applicant submits a plan either:
i. certified by a registered professional engineer or architect; or
ii. meets or exceeds the following standards:


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1. a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. the bottom of all openings shall be no higher than one foot above grade; and
3. openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
(c) Floodproofing measures shall be designed, as appropriate, to:
i. Withstand flood pressures, depths, velocities, uplift and impact forces and other regional flood factors;
ii. Protect structures to the flood protection elevation;
iii. Anchor structures to foundations to resist flotation and lateral movement;
iv. Minimize or eliminate infiltration of flood waters; and
v. Minimize or eliminate discharges into flood waters.
(5) OFFICIALLY DESIGNATED HISTORIC STRUCTURES
A nonconforming historic structure may be altered if: the alteration will not preclude the structure's continued designation as a historic structure; the alteration will comply with section 'l' of this sub-section; flood resistant materials are used; and construction practices and floodproofing methods that comply with section 'o' of this sub-section are used. Repair or rehabilitation of historic structures shall be exempt from the development standards of section 'o(2)' of this sub-section if it is determined that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and is the minimum necessary to preserve the historic character and design of the structure.
(6) STRUCTURES IN A FLOOD STORAGE DISTRICT (FSD)
No modifications or additions shall be allowed to any nonconforming structure in a flood storage area unless the standards outlined in section 'n' of this sub-section are met.
p. ADMINISTRATION
(1) ZONING ADMINISTRATOR – DUTIES AND POWERS (see 17.0203 &17.1000)
The zoning administrator is authorized to administer this ordinance and shall have the following duties and powers:
(a) Attend all meetings of the Zoning Board of Appeals.
(b) Advise applicants of the ordinance provisions, assist in preparing permit applications and appeals, and assure that the regional or base flood elevation for the proposed development is shown on all permit applications.
(c) Issue permits and inspect properties for compliance with provisions of this ordinance and issue certificates of compliance where appropriate.
(d) Inspect and assess all damaged floodplain structures to determine if substantial damage to the structures has occurred.
(e) Keep records of all official actions such as:
i. All permits issued, inspections made, and work approved;
ii. Documentation of certified lowest floor and regional or base flood elevations;
iii. Issuance of Floodproofing Certificates.
iv. Water surface profiles, floodplain zoning maps and ordinances, nonconforming uses and structures including changes, appeals, variances and amendments.
v. All substantial damage assessment reports for floodplain structures.
vi. List of nonconforming structures and uses.
(f) Submit copies of the following items to the Department Regional office:
i. Within 10 days of the decision, a copy of any decisions on variances, appeals for map or text interpretations, and map or text amendments;
ii. Copies of case-by-case analyses and other required information including an annual summary of floodplain zoning actions taken.
iii. Copies of substantial damage assessments performed and all related correspondence concerning the assessments.
(g) Investigate, prepare reports, and report violations of this ordinance to the City
Planner and City Attorney for prosecution. Copies of the reports shall also be sent to the Department Regional office.
(h) Submit copies of amendments to the FEMA Regional office.
(2) LAND USE PERMIT


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A land use permit shall be obtained before any new development; repair, modification or addition to an existing structure; or change in the use of a building or structure, including sewer and water facilities, may be initiated. Application for a permit to the
City planner or zoning administrator shall include:
(a) GENERAL INFORMATION
i. Name and address of the applicant, property owner and contractor;
ii. Legal description, proposed use, and whether it is new construction or a modification.
(b) A SITE DEVELOPMENT PLAN
A site development plan drawn to scale shall be submitted with the permit application form and shall contain:
i. Location, dimensions, area and elevation of the lot or parcel;
ii. Location of the ordinary high water mark (OHWM) of any abutting navigable waterways;
iii. Location of any structures with distances measured from the lot lines and street center lines;
iv. Location of any existing or proposed on-site sewage systems or private water supply systems;
v. Location and elevation of existing or future access roads;
vi. Location of floodplain and floodway limits as determined from the official floodplain zoning maps;
vii. The elevation of the lowest floor of proposed buildings and any fill using the vertical datum from the adopted study – either National Geodetic Vertical Datum
(NGVD) or North American Vertical Datum (NAVD);
viii. Data sufficient to determine the regional or base flood elevation in NGVD or NAVD at the location of the development and to determine whether or not the requirements of sections 'k, l, or m' of this sub-section are met; and
ix. Data to determine if the proposed development will cause an obstruction to flow or an increase in regional or base flood height or discharge according to section 'g' of this sub-section. This may include any of the information noted in section 'l(1)' of this sub-section.
(3) EXPIRATION
For the purposes of this subsection of this ordinance all permits issued for floodplain development shall expire no later than 180 days after issuance. The permit may be extended for up to 180 day for good and sufficient cause.
(4) OTHER PERMITS
Prior to obtaining a land use permit the applicant must obtain permits from all other federal, state, county and city permitting agencies, including but not limited to: the U.S. Army Corp of Engineers under the s. 404 of the Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1344.
q. HYDRAULIC AND HYDROLOGIC STUDIES TO ANALYZE DEVELOPMENT
All hydraulic and hydrologic studies shall be completed under the direct supervision of a state registered professional engineer. The registered professional engineer shall be responsible for the technical adequacy of the study. All studies shall be reviewed and approved by the Department.
(1) ZONE A FLOODPLAIN AREA
(a) HYDROLOGY
The appropriate method shall be based on the standards in ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODELING
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or Base Flood Elevation and the following:
i. Determination of the required limits of the hydraulic model shall be based on detailed study information for downstream structures (dam, bridge, culvert) to determine adequate starting WSEL for the study.
ii. Channel sections must be surveyed.
iii. Minimum four foot contour data in the overbanks shall be used for the development of cross section overbank and floodplain mapping.
iv. A maximum distance of 500 feet between cross sections is allowed in developed areas with additional intermediate cross sections required at transitions in channel bottom slope including a survey of the channel at each location.
v. The most current version of HEC-RAS shall be used.
vi. A survey of bridge and culvert openings and the top of road is required at each structure.


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vii. Additional cross sections are required at the downstream and upstream limits of the development and any necessary intermediate locations based on the length of the reach if greater than 500 feet.
viii. Standard accepted engineering practices shall be used when assigning parameters for the base model such as flow, Manning's N values, expansion and contraction coefficients or effective flow limits. The base model shall be calibrated to past flooding data such as high water marks to determine the reasonableness of the model results. If no historical data is available, adequate justification shall be provided for any parameters outside standard accepted engineering practices.
ix. The model must extend past the upstream limit of the difference in the existing and proposed flood profiles in order to provide a tie-in to existing studies. The height difference between the proposed flood profile and the existing study profiles shall be no more than 0.00 feet.
(c) MAPPING
A work map of the stream reach studied shall be provided, showing all cross section locations, floodway/floodplain limits based on best available topographic data, geographic limits of the development and whether the development is located in the floodway.
i. If the development is located outside of the floodway, then it is determined to have no impact on the regional or base flood elevation.
ii. If any part of the development is in the floodway, it must be added to the base model to show the difference between existing and proposed conditions. The study must ensure that all coefficients remain the same as in the existing model, unless adequate justification based on standard accepted engineering practices is provided.
(2) ZONE AE FLOODPLAIN AREA
(a) HYDROLOGY
If the proposed hydrology will change the existing study, the appropriate method to be used shall be based on ch. NR 116.07(3), Wis. Admin. Code, Hydrologic Analysis: Determination of Regional or Base Flood Discharge.
(b) HYDRAULIC MODEL
The regional or base flood elevation shall be based on the standards in ch. NR 116.07(4), Wis. Admin. Code, Hydraulic Analysis: Determination of Regional or base Flood Elevation and the following:
i. Duplicate Effective Model - The effective model shall be reproduced to ensure correct transference of the model data and to allow integration of the revised data to provide a continuous FIS model upstream and downstream of the revised stream reach. If data from the effective model is available, models shall be generated that duplicate the FIS profiles and the elevations shown in the Floodway Data Table in the FIS report to within 0.1 foot.
ii. Corrected Effective Model - The Corrected Effective Model shall not include any man-made physical changes since the effective model date, but shall import the model into the most current version of HEC-RAS for Department review.
iii. Existing (Pre-Project Conditions) Model - The Existing Model shall be required to support conclusions about the actual impacts of the project associated with the Revised (Post-Project) Model or to establish more up-to-date models on which to base the Revised (Post-Project) Model.
iv. Revised (Post-Project Conditions) Model - The Revised (Post-Project Conditions) Model shall incorporate the Existing Model and any proposed changes to the topography caused by the development. This model shall reflect proposed conditions.
v. All changes to the Duplicate Effective Model and subsequent models must be supported by certified topographic information, bridge plans, construction plans and survey notes.
vi. Changes to the hydraulic models shall be limited to the stream reach for which the revision is being requested. Cross sections upstream and downstream of the revised stream reach shall be identical to those in the effective model and result in water surface elevations and top widths computed by the revised models matching those in the effective models upstream and downstream of the revised stream reach as required. The Effective Model shall not be truncated.
(c) MAPPING
Maps and associated engineering data shall be submitted to the Department for review which meet the following conditions:
i. Consistency between the revised hydraulic models, the revised floodplain and floodway delineations, the revised flood profiles, topographic work map, annotated FIRMs and/or Flood Boundary Floodway Maps (FBFMs), construction plans, bridge plans.


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ii. Certified topographic map of suitable scale, contour interval, and a planimetric map showing the applicable items. If a digital version of the map is available, it may be submitted in order that the FIRM may be more easily revised.
iii. Annotated FIRM panel showing the revised 1.0% and 0.2% annual chance floodplains and floodway boundaries.
iv. If an annotated FIRM and/or FBFM and digital mapping data (GIS or CADD) are used then all supporting documentation or metadata must be included with the data submission along with the Universal Transverse Mercator (UTM) projection and State Plane Coordinate System in accordance with FEMA mapping specifications.
v. The revised floodplain boundaries shall tie into the effective floodplain boundaries.
vi. All cross sections from the effective model shall be labeled in accordance with the effective map and a cross section lookup table shall be included to relate to the model input numbering scheme.
vii. Both the current and proposed floodways shall be shown on the map.
viii. The stream centerline, or profile baseline used to measure stream distances in the model shall be visible on the map.
(3) CERTIFICATE OF COMPLIANCE
For the purposes of this subsection, no land shall be occupied or used, and no building which is hereafter constructed, altered, added to, modified, repaired, rebuilt or replaced shall be occupied until approved by either the Zoning Administrator, City Planner, Plan Commission, Common Council or combinations of these persons or bodies as stipulated in section 17.0200 or elsewhere in this zoning ordinance, and only after the owner has submitted a certification signed by a registered professional engineer, architect or land surveyor that any fill and lowest floor and floodproofing elevations are in compliance with the permit issued. Floodproofing measures also require certification by a registered professional engineer or architect that floodproofing measures meet the requirements of this subsection.
r. ZONING BOARD OF APPEALS (ZBA)
(PLEASE SEE SUBSECTION 17.1000 OF THIS ORDINANCE)
s. PUBLIC INFORMATION
The Zoning Administrator and authorized assistants, the City Planner and other City staff involved in interaction with the public and the media shall provide any electronic, written or verbal information regarding floodplains upon request. In addition they shall:
(1) Keep current records of local flooding;
(2) Retain all available official floodplain maps and documents for ready use;
(3) Provide flood information to other state, county and local agencies and, when possible, mark previously flood inundated structures to show the level of inundation.
(4) Retain any real estate transfers showing in what floodplain district any real property is located.
t. AMENDMENTS
Obstructions or increases may only be permitted if amendments are made to this subsection of the zoning ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section.
(1) In AE Zones with a mapped floodway, no obstructions or increases shall be permitted unless the applicant receives a CLOMR from FEMA and amendments are made to this ordinance, the official floodplain zoning maps, floodway lines and water surface profiles, in accordance with section 't(2)' of this sub-section. Any such alterations must be reviewed and approved by FEMA and the DNR.
(2) The governing body shall change or supplement the floodplain zoning district boundaries and this ordinance in the manner outlined in section 't(3)' of this sub-section below. Actions which require an amendment to the ordinance and/ or submittal of a LOMC include, but are not limited to, the following:
(a) Any fill or floodway encroachment that obstructs flow causing any increase in the regional or base flood height;
(b) Any change to the floodplain boundaries and/or watercourse alterations on the
FIRM;
(c) Any changes to any other officially adopted floodplain maps listed in section 'e(4)' of this sub-section;
(d) Any floodplain fill which raises the elevation of the filled area to a height at or above the flood protection elevation and is contiguous to land lying outside the floodplain;
(e) Correction of discrepancies between the water surface profiles and floodplain maps;
(f) Any upgrade to a floodplain zoning ordinance text required by s. NR 116.05, Wis.


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Adm. Code, or otherwise required by law, or for changes by the city; and
(g) All channel relocations and changes to the maps to alter floodway lines or to remove an area from the floodway or the floodfringe that is based on a BFE from a FIRM requires prior approval by FEMA.
(3) Ordinance amendments may be made upon petition of any party according to the provisions of s. 62.23 of Wisconsin Statutes. The petitions shall include all data required by section 'p(2)' of this sub-section. The Building and/or Land Use Permit shall not be issued until a LOMR is issued by FEMA for the proposed changes.
(a) The proposed amendment shall be referred to the City Plan Commission for a public hearing and recommendation to the governing body. The amendment and notice of public hearing shall be submitted to the Department Regional office for review prior to the hearing. The amendment procedure shall comply with the provisions of s. 62.23 of the Wisconsin Statutes.
(b) No amendments shall become effective until reviewed and approved by the
Department.
(c) All persons petitioning for a map amendment that obstructs flow causing any increase in the regional or base flood height, shall obtain flooding easements or other appropriate legal arrangements from all adversely affected property owners and notify local units of government before the amendment can be approved by the governing body.
u. ENFORCEMENT AND PENALTIES
Any violation of the provisions of this ordinance by any person shall be unlawful and shall be referred to the city attorney who shall expeditiously prosecute all such violators. A violator shall, upon conviction, forfeit to the city a penalty of $50.00 (fifty dollars) or the maximum allowed under ss.87.30(2) for each separate offense, together with a taxable cost of such action. Each day of continued violation shall constitute a separate offense. Every violation of this ordinance is a public nuisance and the creation may be enjoined and the maintenance may be abated by action at suit of the city, the state, or any citizen thereof pursuant to s. 87.30 of Wisconsin Statutes.
v. DEFINITIONS
Unless specifically defined, words and phrases in this ordinance shall have their common law meaning and shall be applied in accordance with their common usage. Words used in the present tense include the future, the singular number includes the plural and the plural number includes the singular. The word "should" is advisory, the word "may" is permissive, the words "shall" or "must" are mandatory and are not discretionary.
(1) A Zones – Those areas shown on the Official Floodplain Zoning Map which would be inundated by the regional or base flood. These areas may be numbered or unnumbered
A Zones. The A Zones may or may not be reflective of flood profiles, depending on the availability of data for a given area.
(2) AH Zone – See "Area of Shallow Flooding".
(3) AO Zone – See "Area of Shallow Flooding".
(4) Accessory Structure Or Use – A facility, structure, building or use which is accessory or incidental to the principal use of a property, structure or building.
(5) Alteration – An enhancement, upgrading or substantial change or modifications other than an addition or repair to a dwelling or to electrical, plumbing, heating, ventilating, air conditioning and other systems within a structure.
(6) Area Of Shallow Flooding – A designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1.0 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flood may be evident. Such flooding is characterized by ponding or sheet flow.
(7) Base Flood –The flood having a one percent chance of being equaled or exceeded in any given year, as published by FEMA as part of a FIS and depicted on a FIRM. Also called the one hundred year recurrence interval flood.
(8) Basement – Any enclosed area of a building having its floor sub-grade, i.e., below ground level, on all sides.
(9) Building – See "Structure".
(10) Bulkhead Line – A geographic line along a reach of navigable water that has been adopted by a municipal ordinance and approved by the Department pursuant to s. 30.11 of Wisconsin Statutes, and which allows limited filling between this bulkhead line and the original ordinary high water mark (OHWM), except where such filling is prohibited by the floodway provisions of this ordinance.


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(11) Campground – Any parcel of land which is designed, maintained, intended or used for the purpose of providing sites for nonpermanent overnight use by 4 or more camping units, or which is advertised or represented as a camping area. (12) Camping Unit – Any portable device, no more than 400 square feet in area, used as a temporary shelter, including but not limited to a camping trailer, motor home, bus, van, pick-up truck, or tent that is fully licensed, if required, and ready for highway use.
(13) Certificate of Compliance – A certification that the construction and the use of land or a building, the elevation of fill or the lowest floor of a structure is in compliance with all of the provisions of this ordinance.
(14) Channel – A natural or artificial watercourse with definite bed and banks to confine and conduct normal flow of water.
(15) Crawlways or Crawl Space – An enclosed area below the first usable floor of a building, generally less than five feet in height, used for access to plumbing and electrical utilities.
(16) Deck – An unenclosed exterior structure that has no roof or sides, but has a permeable floor which allows the infiltration of precipitation.
(17) Department – The Wisconsin Department of Natural Resources.
(18) Development – Any artificial change to improved or unimproved real estate, including, but not limited to, the construction of buildings, structures or accessory structures; the construction of additions or alterations to buildings, structures or accessory structures; the repair of any damaged structure or the improvement or renovation of any structure, regardless of percentage of damage or improvement; the placement of buildings or structures; subdivision layout and site preparation; mining, dredging, filling, grading, paving, excavation or drilling operations; the storage, deposition or extraction of materials or equipment; and the installation, repair or removal of public or private sewage disposal systems or water supply facilities.
(19) Dryland Access – A vehicular access route which is above the regional or base flood elevation and which connects land located in the floodplain to land outside the floodplain, such as a road with its surface above regional or base flood elevation and wide enough for wheeled rescue and relief vehicles.
(20) Encroachment – Any fill, structure, equipment, use or development in the floodway.
(21) Federal Emergency Management Agency (FEMA) – The federal agency that administers the National Flood Insurance Program.
(22) Flood Insurance Rate Map (FIRM) – A map of a community on which the Federal Insurance Administration has delineated both the floodplain and the risk premium zones applicable to the community. This map can only be amended by the Federal Emergency Management Agency.
(23) Flood or Flooding – A general and temporary condition of partial or complete inundation of normally dry land areas caused by one of the following conditions:
- The overflow or rise of inland waters;
- The rapid accumulation or runoff of surface waters from any source;
- The inundation caused by waves or currents of water exceeding anticipated cyclical levels along the shore of Lake Michigan; or
- The sudden increase caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a seiche, or by some similarly unusual event.

(24) Flood Frequency – The probability of a flood occurrence which is determined from statistical analyses. The frequency of a particular flood event is usually expressed as occurring, on the average once in a specified number of years or as a percent (%) chance of occurring in any given year.
(25) Floodfringe – That portion of the one hundred year recurrence interval floodplain outside of the floodway which is covered by flood waters during the regional or base flood and are usually represented or associated with standing or slow moving circulating water rather than straight flowing water.
(26) Flood Hazard Boundary Map – A map designating approximate flood hazard areas. Flood hazard areas are designated as unnumbered A-Zones and do not contain floodway lines or regional or base flood elevations. This map forms the basis for both the regulatory and insurance aspects of the National Flood Insurance Program (NFIP) until superseded by a Flood Insurance Study and a Flood Insurance Rate Map (FIRM).
(27) Flood Insurance Study (FIS) – A technical engineering examination, evaluation, and determination of the local flood hazard areas. It provides maps designating those areas affected by the regional or base flood and provides both flood insurance rate zones and base flood elevations and may provide floodway lines. The flood hazard areas are designated as numbered and unnumbered A-Zones. Flood Insurance Rate Maps, that accompany the FIS, form the basis for both the regulatory and the insurance aspects of the NFIP.


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(28) Floodplain – In the City of Pewaukee, lakes and streams and adjoining land which has been or may be covered by flood water during a regional or base flood, and which is comprised of the floodway, flood fringe, the FEMA 'A zones' plus the WisDNR Flood Storage Districts (FSDs).
(29) Floodplain Island – A natural geologic land formation within the floodplain that is surrounded, but not covered, by floodwater during the regional or base flood.
(30) Floodplain Management – Policy and procedures to insure wise use of floodplains, including mapping and engineering, mitigation, education, and administration and enforcement of floodplain regulations.
(31) Flood Profile – A graph or a longitudinal profile line showing the relationship of the water surface elevation of a flood event to locations of land surface elevations along a stream or river.
(32) Floodproofing – Any combination of structural provisions, changes or adjustments to properties and structures, water and sanitary facilities and contents of buildings subject to flooding, for the purpose of reducing or eliminating flood damage.
(33) Flood Protection Elevation – An elevation of two feet of freeboard above the water surface profile elevation designated for the regional or base flood. (Also see: "Freeboard".)
(34) Flood Storage – Those floodplain areas where storage of floodwaters has been taken into account during analysis in reducing the regional or base flood discharge.
(35) Floodway – The channel of a river or stream and those portions of the floodplain adjoining the channel required to carry the main flow of the regional or base flood discharge and represented or associated with fast moving water.
(36) Freeboard – A safety factor expressed in terms of a specified number of feet above a calculated flood level. Freeboard compensates for any factors that cause flood heights greater than those calculated, including ice jams, debris accumulation, wave action, obstruction of bridge openings and floodways, the effects of watershed urbanization, loss of flood storage areas due to development and aggregation of the river or stream bed.
(37) Habitable Structure – Any structure or portion thereof used or designed for human habitation.
(38) Hearing Notice – Publication or posting meeting the requirements of Ch. 985, Stats. For appeals, a Class 1 notice, published once at least one week (7 days) before the hearing, is required. For all zoning ordinances and amendments, a Class 2 notice, published twice, once each week consecutively, the last at least a week (7 days) before the hearing. Local ordinances or bylaws may require additional notice, exceeding these minimums.
(39) High Flood Damage Potential – Damage that could result from flooding that includes any danger to life or health or any significant economic loss to a structure or building and its contents.
(40) Highest Adjacent Grade – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
(41) Historic Structure – Any structure that is either:
 Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program, as determined by the Secretary of the Interior; or by the Secretary of the Interior in states without approved programs.
(42) Increase In Regional or Base Flood Height – A calculated upward rise in the regional or base flood elevation greater than 0.00 foot, based on a comparison of existing conditions and proposed conditions which is directly attributable to development in the floodplain but not attributable to manipulation of mathematical variables such as roughness factors, expansion and contraction coefficients and discharge.
(43) Land Use – Any use consisting of unimproved or improved real estate. (Also see "Development".)
(44) Lowest Adjacent Grade – Elevation of the lowest ground surface that touches any of the exterior walls of a building.
(45) Lowest Floor – The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a


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basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.
(46) Maintenance – The act or process of restoring to original soundness, including redecorating, refinishing, nonstructural repairs, or the replacement of existing fixtures, systems or equipment with equivalent fixtures, systems or structures.
(47) Manufactured Home – A structure transportable in one or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to required utilities. The term "manufactured home" includes a mobile home but does not include a "mobile recreational vehicle."
(48) Mobile/Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land, divided into two or more manufactured home lots for rent or sale.
(49) Mobile/Manufactured Home Park or Subdivision, Existing – A parcel of land, divided into two or more manufactured home lots for rent or sale, on which the construction of facilities for servicing the lots is completed before the effective date of this ordinance. At a minimum, this would include the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.
(50) Mobile/Manufactured Home Park, Expansion to Existing – The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed. This includes installation of utilities, construction of streets and either final site grading, or the pouring if concrete pads.
(51) Mobile Recreational Vehicle (RV) – A vehicle which is built on a single chassis, 400 square feet or less when measured at the largest horizontal projection, designed to be self-propelled, carried or permanently towable by a licensed, light-duty vehicle, is licensed for highway use if registration is required and is designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel or seasonal use. Manufactured homes that are towed or carried onto a parcel of land, but do not remain capable of being towed or carried, including park model homes, do not fall within the definition of "mobile recreational vehicles."
(52) Model, Corrected Effective – A hydraulic engineering model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the current effective model.
(53) Model, Duplicate Effective – A copy of the hydraulic analysis used in the effective FIS and referred to as the effective model.
(54) Model, Effective – The hydraulic engineering model that was used to produce the current effective Flood Insurance Study.
(55) Model, Existing (Pre-Project) – A modification of the Duplicate Effective Model or Corrected Effective Model to reflect any man made modifications that have occurred within the floodplain since the date of the effective model but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the effective model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model.
(56) Model, Revised (Post-Project) – A modification of the Existing or Pre-Project Conditions Model, Duplicate Effective Model or Corrected Effective Model to reflect revised or post-project conditions.
(57) Municipality or Municipal – The city governmental agencies enacting, administering and enforcing this zoning ordinance.
(58) NAVD or North American Vertical Datum – Elevations referenced to mean sea level datum, 1988 adjustment.
(59) NGVD or National Geodetic Vertical Datum – Elevations referenced to mean sea level datum, 1929 adjustment.
(60) New Construction – For floodplain management purposes, "new construction" means structures for which the start of construction commenced on or after the effective date of floodplain zoning regulations adopted by the City and includes any subsequent improvements to such structures. For the purpose of determining flood insurance rates, it includes any structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.
(61) Nonconforming Structure – An existing lawful structure or building which is not in conformity with the dimensional or structural requirements of this ordinance for the area of the floodplain which it occupies. (For example, an existing residential structure in the flood fringe is a conforming use. However, if the lowest floor is lower than the flood protection elevation, the structure is nonconforming.)


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(62) Nonconforming Use – An existing lawful use or accessory use of a structure or building which is not in conformity with the provisions of this ordinance for the area of the floodplain which it occupies. (Such as a residence in the floodway.)
(63) Obstruction to Flow – Any development which blocks the conveyance of floodwaters such that this development alone or together with any future development will cause an increase in regional or base flood height.
(64) Official Floodplain Zoning Map – That map, adopted and made part of this ordinance, as described in s. 1.5(2), which has been approved by the Department and FEMA.
(65) Open Space Use – Those uses having a relatively low flood damage potential and not involving structures.
(66) Ordinary Highwater Mark – The point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.
(67) Person – An individual, or group of individuals, corporation, partnership, association, municipality or state agency.
(68) Private Sewage System – A sewage treatment and disposal system serving one structure with a septic tank and soil absorption field located on the same parcel as the structure. It also means an alternative sewage system approved by the Department of Safety and Professional Services, including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure.
(69) Public Utilities – Those utilities using underground or overhead transmission lines such as electric, telephone and communication cables, as well as liquid distribution and collection systems such as water mains, sanitary sewers and storm sewers.
(70) Reasonably Safe From Flooding – Means base flood waters will not inundate the land or damage structures to be removed from the floodplain and that any subsurface waters related to the base flood will not damage existing or proposed buildings.
(71) Regional Flood – A flood determined to be representative of large floods known to have occurred in Wisconsin. A regional flood is a flood with a one percent chance of being equaled or exceeded in any given year, and if depicted on the FIRM, the RFE is equivalent to the BFE. (See BASE FLOOD)
(72) Special Flood Hazard Areas (SFHA) – Represent all the land and water areas that are prone to flooding, including: lakes and streams, the designated floodway, the designated flood fringe, the FEMA 'A' zone, and the WisDNR Flood Storage Districts (FSDs).
(73) Start of Construction – The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond initial excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For an alteration, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.
(74) Structure – Any manmade object with form, shape and utility, either permanently or temporarily attached to, placed upon or set into the ground, stream bed or lake bed, including, but not limited to, roofed and walled buildings, gas or liquid storage tanks, bridges, dams and culverts.
(75) Subdivision – Has the meaning given in s. 236.02(12) of Wisconsin Statutes.
(76) Substantial Damage – Damage of any origin sustained by a structure, whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the equalized assessed value of the structure before the damage occurred.
(77) Substantial Improvement – Any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the equalized assessed value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the work performed. The term does not, however, include either any project for the improvement of a building required to correct existing health, sanitary or safety code violations identified


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by the building official and that are the minimum necessary to assure safe living conditions; or any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.
(78) Unnecessary Hardship – Where special conditions affecting a particular property, which were not self-created, have made strict conformity with restrictions governing areas, setbacks, frontage, height or density unnecessarily burdensome or unreasonable in light of the purposes of the ordinance.
(79) Variance – An authorization by the board of adjustment or appeals for the construction or maintenance of a building or structure in a manner which is inconsistent with dimensional standards (not uses) contained in the floodplain zoning ordinance. (80) Violation – The failure of a structure or other development to be fully compliant with the floodplain zoning ordinance. A structure or other development without required permits, lowest floor elevation documentation, floodproofing certificates or required floodway encroachment calculations is presumed to be in violation until such time as that documentation is provided.
(81) Watershed – The entire region contributing runoff or surface water to a watercourse or body of water.
(82) Water Surface Profile – A graphical representation showing the elevation of the water surface of a watercourse for each position along a reach of river or stream at a certain flood flow. A water surface profile of the regional or base flood is used in regulating floodplain areas.
(83) Well – means an excavation opening in the ground made by digging, boring, drilling, driving or other methods, to obtain groundwater regardless of its intended use.

**CITY OF PEWAUKEE MUNICIPAL CODE 87 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

17.0433 LC, LOWLAND CONSERVANCY DISTRICT
The LC, Lowland Conservancy District is intended to be used to delineate those land and water areas that exhibit the physical characteristics of wetlands as defined by botanical and soil experts and professional biologists and, therefore, do not possess the capability of supporting urban or dense rural development, and by doing so, prevent disruption of valuable natural or man-made resources and to protect watercourses, including the shorelands of navigable waters and areas that are not adequately drained or areas which are subject to periodic flooding, where development would result in hazards to health or safety or would be otherwise detrimental to the public welfare and which are not delineated as floodplain areas as set forth in sub-section 17.0435. The delineation of such district boundaries shall be based on information provided by those agencies of government having recognized jurisdiction or expertise in such delineation.
a. Permitted Principal Uses
(1) Non-tilled agricultural uses when conducted in accordance with County
Soil and Water Conservation District Standards. (See 17.0433c below)
(2) Fishing and hunting where allowed by other laws or ordinances.
(3) Harvesting of wild crops such as marsh hay, ferns, moss, berries, tree fruits, and tree seeds.
(4) Preservation of scenic, historic, native grassed prairies and scientific areas.
(5) Public fish hatcheries.
(6) Public and private open space areas.
(7) Sod farms (See (1) above).
(8) Stream bank and lakeshore protection.
(9) Sustained yield forestry.
(10) Wildlife preserves.
(11) Public works.
b. Permitted Accessory Uses
(1) Structures used in or accessory to a fish hatchery.
(2) Non-walled park or recreation shelters.
(3) Structures such as elevated wooden walkways used to traverse lowlands or watercourses.
(4) See Section 17.0700.
c. Conditional Uses
(1) Any activity that requires the excavation or stockpiling of earthen materials. (Also see 17.0433i, below).
(2) Non-conforming structure modification.


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d. Lot Area and Width
No minimum lot area or width.
e. Building Height and Area (See subsection 17.0210)
(1) No principal building or structure or part thereof shall exceed 35 feet in height.
(2) No accessory building or structure or part thereof shall exceed 18 feet in height.
(3) The sum total of the ground level area of all buildings or structures shall not exceed one (1) percent of the total area of the parcel.
f. Setback and Yards.
Same as the most restrictive adjacent zoning district.
g. Off-street Parking and Loading Space
Off-street parking and loading space to accommodate permitted principal and accessory uses on the premises (see section 17.0600).
h. Minimum Utility Service
Electricity
i. Special Regulations
To encourage uses that are compatible with the residential character of the City, Building and/or Zoning permits for permitted uses in the LC-Lowland Conservancy District shall not be issued without prior review by and approval of the City Plan Commission. Said review and approval shall be concerned with adjacent existing and planned uses, need for public or private water supply and sanitary disposal facilities, general site layout, building and operation plans, building materials, ingress, egress, signage, lighting, storm water drainage, parking, loading and unloading, and screening and landscape plans. Permits issued by the U.S. Army Corp of Engineers and the WisDNR may be required. In addition, where walled structures exist within the LC district and are, therefore non-conforming, they may only be added to or modified in compliance with these regulations, including subsection 17.0435j.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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PARCEL A OF CERTIFIED SURVEY MAP NO. 2100, RECORDED JUNE 21, 1974 IN VOLUME 14 OF CERTIFIED SURVEY MAPS ON PAGES 345 TO 349 AS DOCUMENT NO. 885323, BEING A PART OF THE NORTHEAST 1/4 OF SECTION 12, TOWNSHIP 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

TAX KEY NO. PWC 0909999001


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 2370-04-70**
**Parcel No. 2**
**Owner: Kurt D. and Katie L. Nettesheim**
**Interest: TLE**

**TEMPORARY LIMITED EASEMENT** for the right to construct a bridge and for slope grading, including for such purpose the right to operate the necessary equipment thereon and the right of ingress and egress as long as required for such public purpose, including the right to preserve, protect, remove, or plant thereon any vegetation that the highway authorities may deem necessary or desirable, in and to **all that land of the owner contained within the following described tract** being a part of Parcel "A", CSM 2100 located in the Northwest 1/4 of the Northeast 1/4 of Section 12, T7N, R19E, City of Pewaukee, Waukesha County, Wisconsin more fully described as follows:

Commencing at the North quarter corner of said Section 12;
Thence South 01°07'13" West, 230.05 feet along the West line of the Northeast quarter of said Section 12;
Thence North 63°21'30" East, 63.22 feet to the 2370-04-70 project reference line and being the Point of Beginning;
Thence continuing North 63°21'30" East, 40.47 feet to the northeasterly right-of way of Duplainville Rd;
Thence North 63°41'02" East, 6.55 feet;
Thence South 26°43'57 East, 130.32 feet;
Thence North 77°40'56" East, 3.10 feet;
Thence South 26°50'23" East, 48.68 feet;
Thence South 63°24'02" West, 5.00 feet to the said northeasterly right-of-way;
Thence continuing South 63°24'02" West, 45.53 feet to the said project reference line;
Thence North 26°35'58" West, 174.05 feet along said reference line to a curve to the right;
Thence along said curve 5.72 feet, having a 2150.00 feet radius and a cord bearing
North 26º31'24" West, 5.72 feet to the Point of Beginning.

**Excepting** those lands already conveyed or dedicated for Highway right-of-way purposes.

Containing 247 square feet more or less.

All TLE's expire at the completion of the construction project for which this instrument is given.

Subject to all other easements and restrictions, recorded and unrecorded.

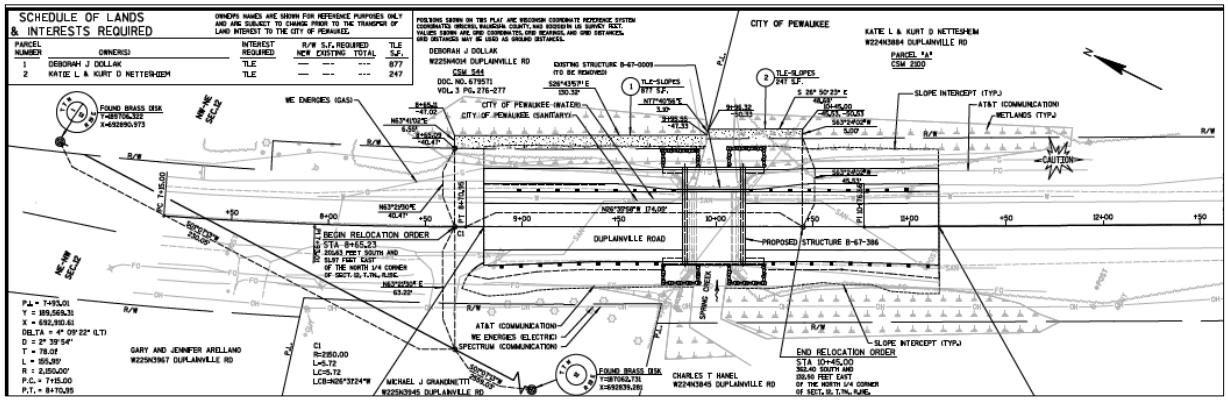

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**ADDENDUM F**

**ACQUISITION PLAT**


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## ACQUISITION PLAT



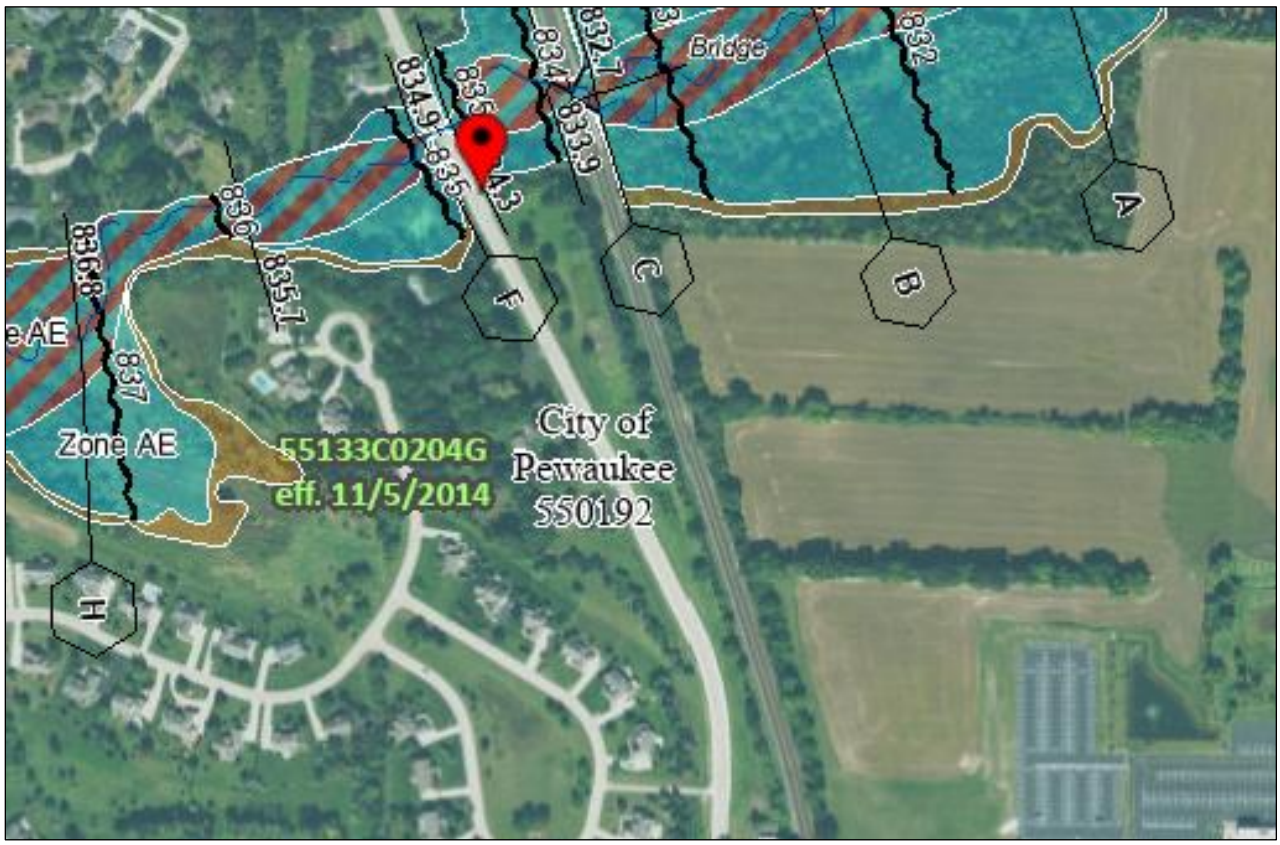


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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# ADDENDUM H
# QUALIFICATIONS


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, University of Wisconsin-Madison, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W225N3484 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 1

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

February 16, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 1

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, south of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N3484 Duplainville Road. According Public Records, the site contains approximately 1.8766-acres or 81,745-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with two retail buildings.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W225N3484 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**EIGHT HUNDRED DOLLARS**

**($800)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $364,200 |
| Market Value Following Acquisition: | $363,400 |
| Loss in Market Value: | $800 |
| Temporary Limited Easement: | $0 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$800** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$0** |
| **Total:** | **$800** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

I certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Steve Boll spoke with Dean G. Katz via telephone and invited him to accompany the appraisers on the inspection. Mr. Katz declined but told Mr. Boll they can inspect unaccompanied. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject site unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total loss in market value to the subject property herein described is $800.





Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Dean G. Katz |
| Property Address: | W225N3484 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin |
| Owner Address: | W314N5048 State Road 83<br>Hartland, Wisconsin 53029 |
| Phone: | 262-367-7581 |
| Total Land Area: | 1.8766-acres or 81,745-square feet |
| Building Improvements: | The subject is improved with two retail buildings |
| Assessor's Parcel Number: | PWC 0912980 |
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Industrial/Commercial Development |
| As Improved: | Retail Development |
| Property Rights Appraised: | Fee Simple Estate |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | 209 square feet or 0.004798 acres |
| Acquired Site Improvements: | None |
| Temporary Limited Easement: | None |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $364,200 |
| Market Value Following Acquisition: | $363,400 |
| Loss in Market Value: | $800 |
| Temporary Limited Easement: | $0 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$800** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$0** |
| **Total:** | **$800** |


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, south of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N3484 Duplainville Road. According Public Records, the site contains approximately 1.8766-acres or 81,745-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with two retail buildings.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owner of the subject property is Dean G. Katz. According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | February 16, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 1.8766-acres or 81,745-square feet. The subject is improved with retail buildings.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 1.8718-acres or 81,536-square feet. The subject is improved with retail buildings.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

There is no easement associated with the subject property.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

Mr. Katz expressed concern about the size of his parcel and his ability to redevelop his property. He indicated that he believed the subject parcel was at least two acres in size in the "before" condition. Public records indicate the subject parcel is 1.8766 acres in size.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 29 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a commercial/industrial use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

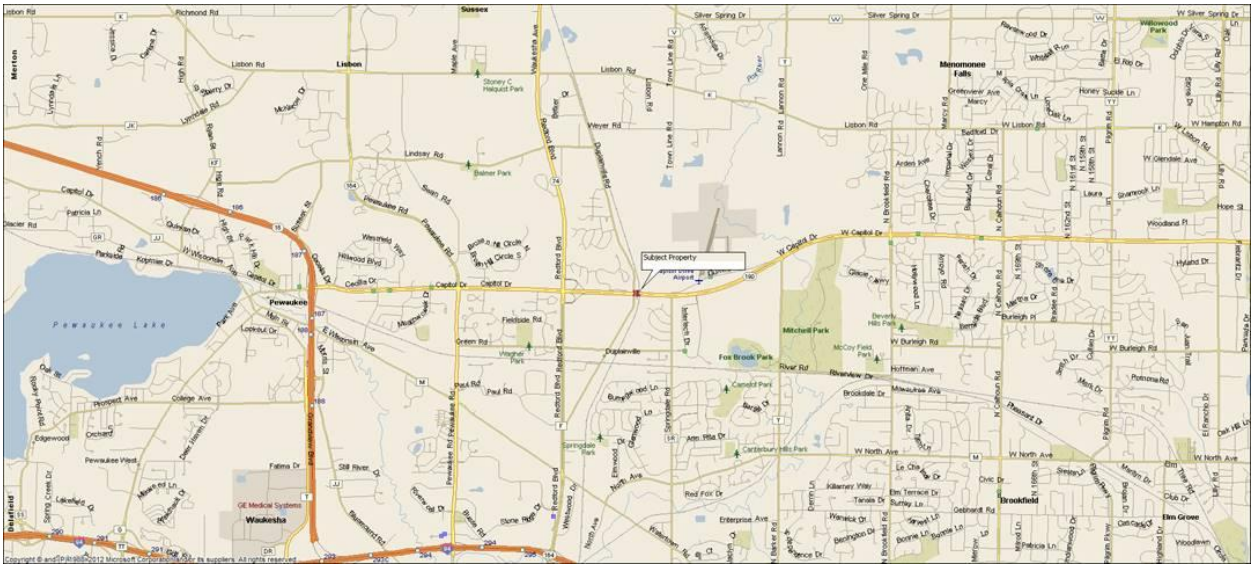

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeaster Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Capitol Drive |
| South: | Interstate 94 |
| East: | Springdale Road |
| West: | County Highway F |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.

Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.


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**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the north of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, south of West Capitol Drive and north of Green Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N3484 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along West Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 1.8766-acres or 81,745-square feet.

### Shape and Frontage

The subject is irregular in shape with 575 lineal feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography near Duplainville Road sloping downward towards the eastern property line. The subject property has an irregular shape and is generally level at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

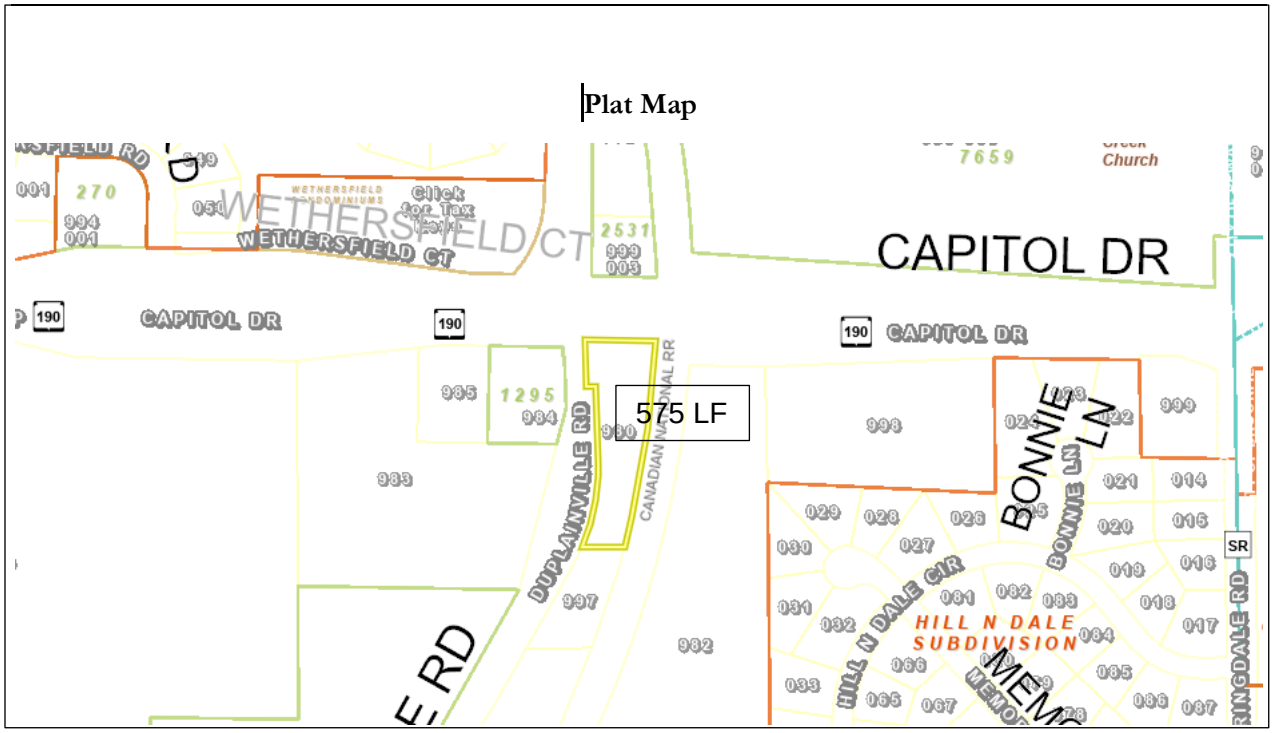
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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Plat Map




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within X as indicated on FEMA Community Map Panel 55133CO204G dated November 5, 2014. FEMA Zone X: Areas determined to be outside the 500 year flood plain.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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**Site Improvements**

The site is improved with two retail buildings. The improvements will not be impacted by the road project.

**Aerial Map**




**Larger Parcel**

According to Public Records, the site contains approximately 1.8766-acres or 81,745-square feet. The subject is improved with two retail buildings. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

**Conclusion**

The property is comprised of a single larger parcel containing 1.8766-acres or 81,745-square feet. The site topography is generally level and at road grade.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Permitted Uses: | Wholesale businesses, wholesale storage |
| **Category** | **Zoning Requirement** |
| Front Setback: | 30-feet from right-of-way |
| Rear Setback: | 25-feet |
| Side Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 200' at building |
| Parking | As determined practical by the Plan Commission 17.0601 |
| Distance from Other Buildings | No closer than 50-feet from another building |
| Source: City of Pewaukee Zoning Code | |
| Compiled By: Single Source, Inc. | |

The property is considered to be a legal non-conforming use in the "before" and "after" condition. The subject property consists of 1.8766 acres "before" and will contain 1.8718 acres in the "after" condition. The minimum lot size per the M-1 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0912980 | $187,700 | $84,500 | $272,200 | $3,372.94 |
| Equalized Market Value @ 100% | $191,400 | $86,200 | $277,600 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $3,372.94 includes a First Dollar Credit of $66.80, special assessments of $47.44 and fire inspection fee of $47.44.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned M-1, General Wholesale Business/Warehouse District. The M-1 General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission. The subject property does not comply with the current zoning standards as it does not meet the minimum lot area standard of 2.0 acres. However, the subject property could be developed with a zoning variance from the City of Pewaukee.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally irregular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. However, the area near the subject site is generally improved with residential, commercial and industrial buildings properties. Based on the subject's specific location and physical characteristics, it is our opinion that an industrial use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics, it is our opinion that development of the site with a commercial use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

#### Conclusion: Highest and Best Use As Though Vacant

The concluded highest and best use of the subject as though vacant is industrial development.


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## HIGHEST AND BEST USE AS IMPROVED

### Legal Permissibility

The subject is a legal non-conforming use as improved per the M-1, General Wholesale Business/Warehouse District zoning code. According to measurements taken from the Waukesha County GIS the northern building appears to be approximately 2-feet from the north property line, which does not meet the minimum side-yard setback of 25-feet. Additionally, the two accessory structures appear to be approximately 3-feet from the east property line which does not meet the minimum rear-yard setback of 25-feet. Also, the northern and southern structures are approximately 33-feet apart, which does not meet the zoning code requirement that buildings shall be no closer than 50-feet from another building.

### Physical Possibility

The layout and positioning of the improvements are functional for a two building configuration, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current retail buildings.

### Financial Feasibility

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active industrial and commercial market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

### Conclusion: Highest and Best Use as Improved

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as two buildings. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

### Conclusion: Highest and Best Use – Before Acquisition

The concluded highest and best use of the subject before the acquisition is continued use as two retail buildings.

### Conclusion: Highest and Best Use – After Acquisition

The concluded highest and best use of the subject after the acquisition is continued use as two retail buildings.


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**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 81,745-square feet or 1.8766-acres in the "before" condition. The subject is improved with two retail buildings, in the "before" and "after" condition. Following the acquisition the subject site will be 1.8718-acres or 81,536-square feet, as there is a fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat No. 21-01, Plat Sheet No. 4.01 recorded February 10, 2022 are as shown below.

| | | |
|---|---|---|
| Subject Before Acquisition: | 81,745 SF | 1.8766-acres |
| Land (in fee): | 209 SF | 0.004798 |
| Existing Right-of-Way: | None | |
| Temporary Limited Easement: | None | |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 81,536 SF | 1.8718-acres |

**Acquired Parcel**

A 209-square foot area of land located along the west side of the subject site will be acquired for the road project.

In the case of a partial taking of property other than an easement, the compensation to be paid by the condemnor shall be the greater of either the fair market value of the property taken as of the date of evaluation or the sum determined by deducting from the fair market value of the whole property immediately before the date of evaluation, the fair market value of the remainder immediately after the date of evaluation ("before and after").

**Temporary Limited Easement**

None.

**Site Improvements**

There are no identified site improvements located within the fee area. There is a small retaining wall located east of the identified fee area. Ashley Pridemore, Project Engineer, confirmed that the retaining wall will not be disturbed.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

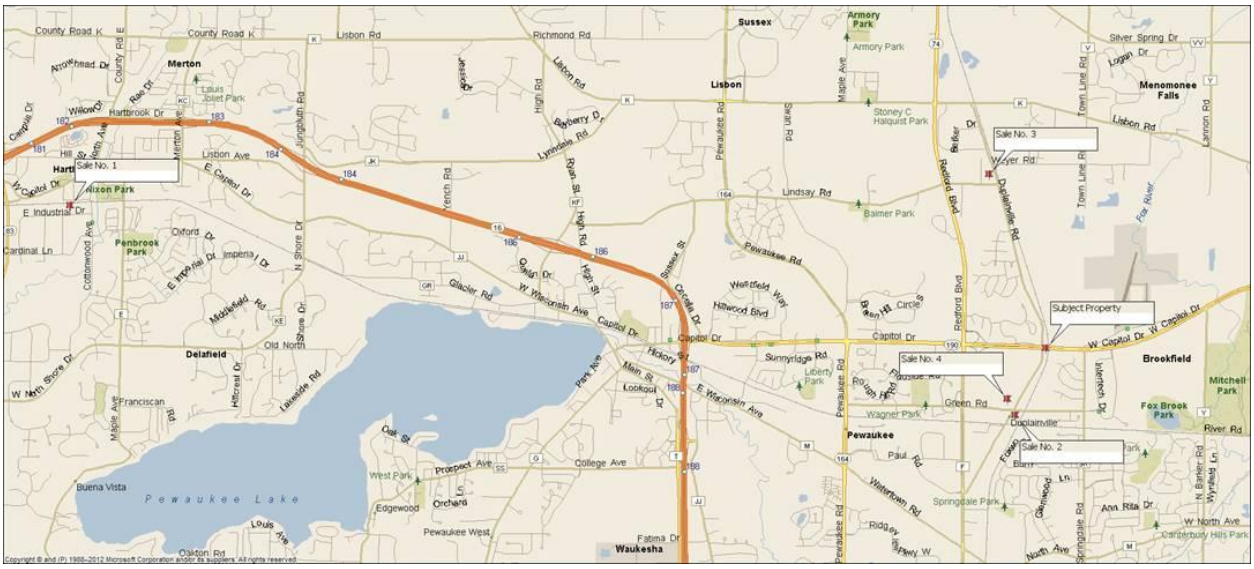
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

### Land Sale Map




### ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $2.24 to $4.38 per square foot of land area. The primary differences between the comparable sales and the subject include market conditions, location, physical characteristics and size of the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.


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**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4014 Duplainville Rd. Pewaukee, WI | -- | 81,745 | 1.8766 | M-1 | -- | -- | |
| 1 | 440 E. Industrial Rd. Hartland, WI | Feb-21 | 131,425 | 3.0171 | M-1 | $575,000 | $4.38 | $190,580 |
| 2 | W226N2974 Duplainville Rd. Pewaukee, WI | Apr-20 | 83,744 | 1.9225 | M-2, LC | $210,000 | $2.51 | $109,233 |
| 3 | W227N4755 Duplainville Rd. Pewaukee, WI | Oct-18 | 445,885 | 10.2361 | M-2, LC | $998,058 | $2.24 | $97,504 |
| 4 | Green Rd. Pewaukee, WI | Feb-17 | 470,823 | 10.8086 | M-6 | $1,307,600 | $2.78 | $120,978 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation, due to the returned strength of the real estate markets. The inflationary increase is estimated at 3.00% percent per year for the subject area. All sales over one year from the date of value were adjusted.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available but not currently connected. Sales No. 1, 2 and 3 have both sewer and water available so therefore no adjustments are required. Sale No. 4 has water available but not sewer and requires an upward adjustment.

**Size**

The subject site has a size of approximately 1.8766-acres or 81,745-square feet of land area. The comparable sales range from 83,744-square feet to 470,823-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale No. 2 is deemed similar in size compared to the subject site and requires no adjustment. Sale Nos. 1, 3 and 4 are deemed larger in size compared to the subject site and require varying degrees of upward adjustments.


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**Location**

The subject parcel is located along the east side of Duplainville, east of County Highway F, and north of Green Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225 N3484 Duplainville Road. All Sales have similar locations to the subject site and do not require adjustment.

**Access/Visibility**

The subject property has average visibility from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale No. 3 is deemed similar in access and visibility to the subject site and requires no adjustment. Sale Nos. 1, 2 and 4 are deemed to have superior access and visibility to the subject site and require downward adjustment.

**Physical Features**

The subject is irregular in shape with generally level topography and at road grade. The balance of the subject site slopes downward towards the eastern property line which abuts a Canadian Pacific rail system. All sales abut rail systems so in our opinion no adjustment is required. All sales are generally rectangular in shape are deemed superior compared to the subject site and require downward adjustment.

**Zoning and Use**

The subject property is zoned M-1, General Wholesale Business/Warehouse District, which allows Wholesale Retail and Wholesale Storage and retail sales with Plan Commission approval. All sales have similar manufacturing, industrial, or business wholesale zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 | | SALE No. 4 |
|---|---|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $575,000 | | $210,000 | | $998,058 | | $1,307,600 |
| Date of Sale | | -- | Feb-21 | | Apr-20 | | Oct-18 | | Feb-17 |
| Net Site Size (SF) | | 81,745 | 131,425 | | 83,744 | | 445,885 | | 470,823 |
| Price/SF | | -- | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| Time/Market Conditions | | | 2.77% | | 5.47% | | 9.75% | | 14.82% |
| | | | $ 0.12 | | $ 0.14 | | $ 0.22 | | $ 0.41 |
| Current CE Price/SF | | | $ 4.50 | | $ 2.64 | | $ 2.46 | | $ 3.19 |
| DIRECT ADJUSTMENTS | | | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 0.0% | | 0.0% | | 0.0% | | 10.0% |
| | | | $ - | | $ - | | $ - | | $ 0.32 |
| Total Direct Adjustments | | | $ - | | $ - | | $ - | | $ 0.32 |
| Adjusted CE Sale Price/SF | | | $ 4.50 | | $ 2.64 | | $ 2.46 | | $ 3.51 |
| PERCENTAGE ADJUSTMENTS | | | | | | | | | |
| Size (SF) | 81,745 | | 131,425 | | 83,744 | | 445,885 | | 470,823 |
| | | | Larger | | Similar | | Larger | | Larger |
| | | | 10% | | 0% | | 20% | | 20% |
| | | | $ 0.45 | | $ - | | $ 0.49 | | $ 0.70 |
| Market Area/Location | Pewaukee | | Similar | | Similar | | Similar | | Similar |
| | | | 0% | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Access/Visibility | Average/Average | | Superior | | Superior | | Similar | | Superior |
| | | | -5% | | -5% | | 0% | | -5% |
| | | | (0.22) | | (0.13) | | - | | (0.18) |
| Other Physical Features | Irregular | | Superior | | Superior | | Superior | | Superior |
| | | | -5% | | -5% | | -5% | | -5% |
| | | | (0.22) | | (0.13) | | (0.12) | | (0.18) |
| Zoning | M-1 | | M-1 | | M-2, LC | | M-2, LC | | M-6 |
| | | | 0% | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ - | | $ (0.26) | | $ 0.37 | | $ 0.35 |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **4.50** | | **2.38** | | **2.83** | | **3.86** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 3.39** | | | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$ 3.40** | | | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **81,745** | | | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 277,932** | | | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 278,000** | | | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $2.38 to $4.50 per square foot, with an average of $3.39 per square foot. Primary weight was placed on Sales 1 and 2 as they required the least amount of adjustment. Secondary weight was placed on Sales 3 and 4. Based on this analysis, the subject property is estimated to have a value near the average at $3.40 per square foot, between all four sales.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 81,745 | X | $3.40 | = | $277,932 |
| **Value Indication (Rounded):** | | | | **$278,000** |

**Before Value**

The total "before" value is $364,200 ($278,000 - land + $86,200 - improvements, per assessment, rounded).

**Acquired Land Value Conclusion – Fee Acquisition Area**

**Concluded Land Value**
**Acquired Land**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 209 | X | $3.40 | = | $711 |
| **Value Indication (Rounded):** | | | | **$800** |

**Concluded Land Value**
**Remainder Land**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 81,536 | X | $3.40 | = | $277,223 |
| **Value Indication (Rounded):** | | | | **$277,200** |


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**Valuation of Site Improvements**

There is a small retaining wall located near, but outside the fee acquisition area of the project. Ashley Pridemore, Project Engineer, confirmed that the wall will not be disturbed. There are no site improvements located within the acquisition area, therefore, no compensation is allocated.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $363,400 ($277,200 - land + $86,200 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $364,200 |
| Market Value Following Acquisition: | $363,400 |
| Loss in Market Value: | $800 |
| Temporary Limited Easement: | $0 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$800** |
| **Site Improvements:** | **$0** |
| **Temporary Limited Easement:** | **$0** |
| **Total:** | **$800** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT RETAIL BUILDINGS LOOKING EAST**



**VIEW OF CANADIAN PACIFIC RAIL SYSTEM LOOKING EAST**


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FEE AREA LOOKING NORTH



FEE AREA LOOKING SOUTH


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | 440 East Industrial Drive<br>Village of Hartland, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 3.0171-acres |
| Zoning: | M-1 Limited Manufacturing and Wholesale Business District |
| Topography: | Generally level with slightly rolling |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | HAV-0729-947-007 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 26, 2021 |
| Sale Price: | $575,000 |
| Sale Price/SF: | $4.38 |
| Sale Price/Acre: | $190,580 |
| Grantor: | Ronald D. Jaeger |
| Grantee: | Joseph Grasch Development, LLC |
| Document No.: | 4561684 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 2 of Certified Survey Map No. 8334 recorded in theoffice of the Register of Deeds for Waukesha County,Wisconsin, on August 22, 1997 in Volume 73 of CertifiedSurvey Maps, at Page 48, as Document No. 2239828, being aredivision of Lot 1 of Certified Survey Map No. 7438, being apart of the Southwest 1/4 of the Northeast 1/4 of Section 3,Town 7 North, Range 18 East, in the Village of Hartland,County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the north side of East Industrial Drive, just west of Cottonwood Avenue and east of State Highway 16. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-1 and allows for wholesale business uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 2



**Property Identification**

| | |
|---|---|
| Location: | W226N2974 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 1.9225-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Downward sloping and level |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0914992001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | April 30, 2020 |
| Sale Price: | $210,000 |
| Sale Price/SF: | $2.51 |
| Sale Price/Acre: | $109,233 |
| Grantor: | NJT Development of Pewaukee, LLC |
| Grantee: | Duplainville Land Company, LLC |
| Document No.: | 4465218 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Lot One (1) of CERTIFIED SURVEY MAP NO. 11828, being part of the Northeast One-quarter (1/4) of the Northwest Onequarter (1/4) of Section Thirteen (13), Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on March 25, 2019 in Book 119, Pages 161 through 163 inclusive, as Document No. 4388415, as corrected by an Affidavit of Correction recorded on April 19, 2019 as Document No. 4392328. |


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**Comments:**

The parcel is located along the east side of Duplainville Road, just south of Green Road. The property abuts the CP Rail system. The property has average access and visibility with general level topography, slightly below street grade, with downward sloping topography toward the rail line. The property is zoned M-2 and LC and allows for manufacturing and related office uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | W227 N4755 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.2361-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0866997004 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | October 31, 2018 |
| Sale Price: | $998,058 |
| Sale Price/SF: | $2.24 |
| Sale Price/Acre: | $97,504 |
| Grantor: | MH Land, LLC |
| Grantee: | KD Glass, LLC |
| Document No.: | 4369569 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, MLS, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description: PARCELS 1-3 OF CERTIFIED SURVEY MAP NO. 8264,RECORDED ON MAY 1, 1997, IN VOLUME 72 OFCERTIFIED SURVEY MAPS ON PAGES 120 TO 123,INCLUSIVE AS DOCUMENT NO. 2209268, BEING ADIVISION OF LANDS IN THE NORTHWEST ¼ OF THENORTHWEST ¼ OF SECTION 1, TOWN 7 NORTH, RANGE19 EAST, CITY OF PEWAUKEE, COUNTY OF WAUKESHA,STATE OF WISCONSIN.

**Comments:**
The parcel is located along the west side of Duplainville Road, just north of Lindsay. The property is locatged across the road from the CP Rail system. The property has average access and visibility with generally level topography. The property is zoned M-2 and LC and allows for manufacturing and related office uses. The site is serviced with water and sewer. The property was developed with an industrial use property post-sale.

**Parcel Map**





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## LAND SALE NO. 4




**Property Identification**

| | |
|---|---|
| Location: | Green Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.8086-acres |
| Zoning: | M-6 Mixed Industrial Use District |
| Topography: | Generally Level |
| Utilities: | Water, no sewer |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0914987 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 21, 2017 |
| Sale Price: | $1,307,600 |
| Sale Price/SF: | $2.78 |
| Sale Price/Acre: | $120,978 |
| Grantor: | Schmidt Family Investments Limited Partnership |
| Grantee: | IP Green Road, LLC |
| Document No.: | 4264141 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records, Interstate Partners, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description:

All that part of the North One-half (1/2) of the Northwest One-quarter (1/4) of Section Thirteen (13), in Township Seven (7)North, Range Nineteen (19) East, in the City of Pewaukee,County of Waukesha, State of Wisconsin, described asfollows, to-wit: Beginning at a point in the North line of saidSection, 687 feet East of the Northwest corner, thence Easton the Section line 1456 feet to the intersection of the highways; thence South 27° West along the center of thehighway 652 feet to the North line of the Chicago, Milwaukee& St. P. Ry.; thence West along the North line of said Railway1213 feet; thence North 5° East 606 feet to the place ofbeginning. Excepting therefrom those lands conveyed in aWarranty Deed recorded on November 19, 1900 in Volume 71of Deeds, at Page 230, as Document No. 43543; and in aWarranty Deed recorded on May 27, 1889 in Volume 74 ofDeeds, at Page 111, as Document No. 14005; and in aWarranty Deed recorded on November 19, 1892 in Volume 89of Deeds, at Page 34, as Document No. 30659; and in aWarranty Deed recorded on January 20, 1945 in Volume 365of Deeds, at Page 446, as Document No. 270818; and in aConveyance of Lands recorded on August 19, 1952 in Volume582, at Page 11, as Document No. 369391; and in a WarrantyDeed recorded on June 20, 1958 in Volume 775 of Deeds, atPage 337, as Document No. 479976.

**Comments:**

The parcel is located along the south side of Green Road just east of Duplainville Road. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-6 and allows for industrial uses. The site is serviced with water not sewer. The property is currently being marketed by Interstate Partners for a speculative 140,000 square foot industrial use building.


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**Parcel Map**





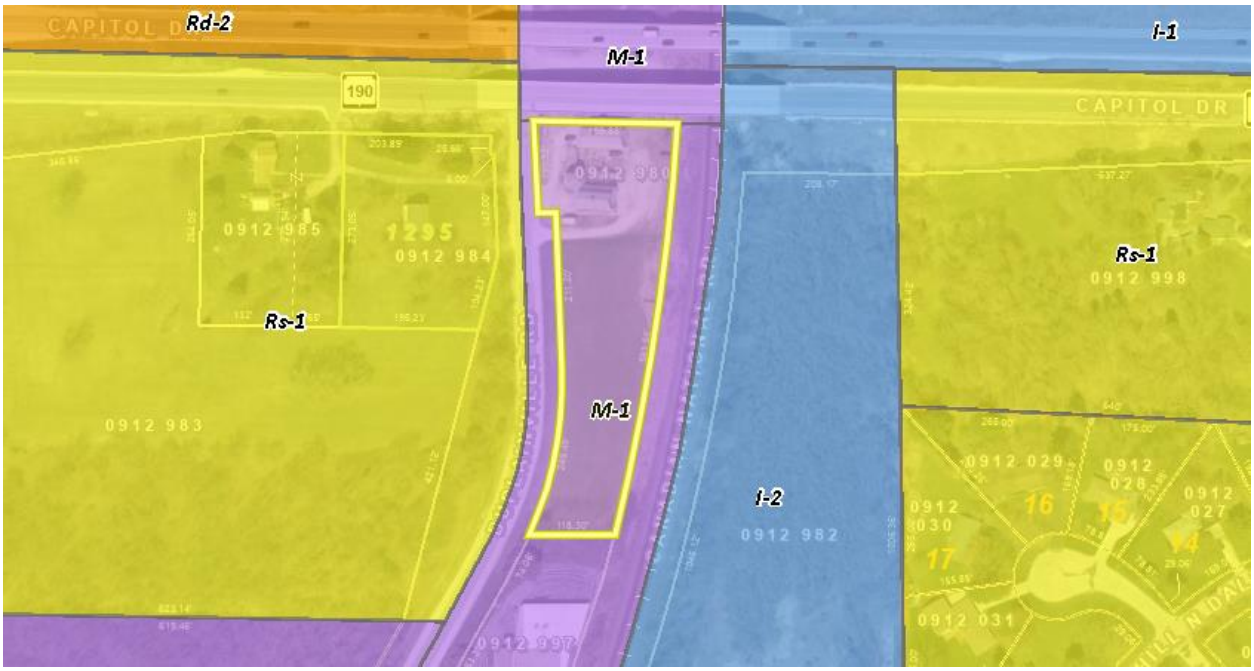
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**ADDENDUM D**

**ZONING MAP & CODE**


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## ZONING MAP




**CITY OF PEWAUKEE MUNICIPAL CODE 66 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0423 M-1, GENERAL WHOLESALE BUSINESS/WAREHOUSE DISTRICT**
The M-1, General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission.
a. Permitted Principal Uses
(1) Establishments for the wholesale sale of goods and materials (other than chemical, flammable liquid, gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from public streets, roads, or highways and adjacent uses and where the individual goods or materials are not reduced in size or basically changed in character.
(2) Buildings or yards for the storage of wholesale goods and materials (other than chemicals, flammable liquids, and gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from passersby, public streets, roads, or highways and adjacent uses, and where the individual goods or materials are not reduced in size or basically changed in character.
(3) Commercial Kennels. (Cr. 13-09) b. Permitted Accessory Uses
(1) Offices, or garages for storage of licensed vehicles used in conjunction with the operation of the business or for occupants of the premises.
(2) Screened off-street parking and loading access, including parking ramps and garages.
(3) (See Section 17.0700).
(4) The storage of not more than 10,000 gallons of fuel and petroleum products for use incidental to the principal use and upon specific approval of the Plan Commission after recommendation by the Fire Chief.
c. Conditional Uses


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(1) Establishments for the temporary storage of vehicles used in the transport of goods and materials.
(2) Establishments for the transfer of wholesale goods and materials from one transport vehicle to another.
(3) Buildings, structures, or tanks used for the storage of chemicals, flammable liquids, and gaseous or vaporous substances, other than permitted accessory uses, upon specific approval of the Plan Commission after recommendation by the Fire Chief.
(4) Yards and structures used for the temporary storage or holding of animals not for slaughter.
(5) Warehouses used, or designed to be used, for the storage of domestic household goods, "dead" files and other limited time and use storage.
(6) Residential quarters for the owner or hired caretaker provided that such quarters are in the principal building, not more than 750 square feet in area, no more than two (2) bedrooms, and not for rent, lease or separate sale.
(7) Yards for the storage of bulk construction products when screened from view.
d. Lot Area and Width
(1) Lots shall have a minimum area of two (2) acres.
(2) Lots shall not be less than 200 feet in width at the building setback line.
e. Building Height and Size (See Section 17.0210)
(1) No principal building, no part of a principal building, and no goods or materials stored shall exceed 35 feet in height.
(2) No accessory building shall exceed 18 feet in height.
f. Setback and Yards
(I) There shall be a minimum building (or street) setback of 30 feet from the right-of-way of all streets, roads, or highways.
(2) There shall be a side yard on each side of all buildings not less than 25 feet in width and buildings shall be no closer than 50 feet from another building.
(3) There shall be a rear yard of not less than 25 feet.
(4) All structures and storage yards shall be set back a minimum 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see subsection 17.0435)
g. Parking and Loading Space
(1) There shall be adequate paved off-street parking space provided for the intended use of the property and no on-street parking or on-street vehicle maneuvering will be allowed in the vicinity of the property. (Also see subsection 17.0210 and section 17.0600).
(2) There shall be adequate paved off-street loading area provided to accommodate all necessary loading and unloading activities on the premises, and no loading dock or area shall be located closer than 100 feet from the right-of-way of a public access street.
(3) All parking and loading areas shall be adequately screened as determined by the Plan Commission.
(4) There shall be no driveway, parking or loading area within 25 feet of a street right-of-way or 15 feet of an adjacent property.
h. Minimum Utility Service
Electricity, and where available, public sewer and water supply.
i. Special Regulations
To encourage wholesale business use environment that is compatible with the residential character of the City, a Building and/or Zoning permits for permitted uses in the M-1 District shall not be issued without prior review by and approval of the City Plan Commission. Said review and approval shall be concerned with existing and planned adjacent uses, need for public or private water supply and sanitary sewage disposal facilities, general site layout, building and operation plans, ingress, egress, drainage, lighting, signage, parking, loading and unloading, screening and landscape plans.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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PT SE1/4 SEC 12 T7N R19E COM NW COR S87°35'51"E 784.00 FT; S1°05'51"E 34.58 FT; S87°35'51"E 24.80 FT TO POINT ON E LI OF DUPLAINVILLE RD AND THE BGN; S87°35'51"E 199.88 FT TO W LI OF SOO LI RR ROW; 583.66 FT ALG W LI ARC OF CURVE TO RIGHT RADIUS 2821.43 FT CHORD BEARING S9°32'15"W 582.61 FT; N88°32'11"W 118.30 FT TO POINT E LI OF DUPLAINVILLE RD; 245.49 FT ALG ARC OF CURVE TO LEFT OF RADIUS 570.87 FT CHORD BEARING N11°13'18"E 243.60 FT; N1°05'51"W ALG E LI 211.20 FT; S88°54'09"W 25.75 FT; N1°05'51"W 130.32 FT TO BGN DOC# 4087447 IN THE CITY OF PEWAUKE, WAUKESHA COUNTY, WISCONSIN.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 1**
**Owner: Dean G. Katz**
**Interest: Fee**

Parcel No. 1 of Transportation Project Plat 21-01-4.01 recorded as Document #4651214, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel No. 1 consist of:

**Fee Simple**


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**ADDENDUM F**

**ACQUISITION PLAT**


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**ACQUISITION PLAT**





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**ADDENDUM G**

**FLOOD PLAIN MAP**


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**ADDENDUM H**
**QUALIFICATIONS**

## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W223N2554 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 2

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

February 16, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 2

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W223N2554 Duplainville Road. According Public Records, the site contains approximately 1.8637-acres or 81,183-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with three self-storage buildings.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W223N2554 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**THIRTEEN HUNDRED DOLLARS**

**($1,300)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $985,100 |
| Market Value Following Acquisition: | $985,100 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,300 |
| **Total Damages (Rounded):** | $1,300 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,300** |
| **Total:** | **$1,300** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

I certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Jason Williams spoke with Ralph Rausch, a representative of All One Storage, LLC, via telephone and invited him to accompany the appraisers on the inspection. Mr. Rausch declined but told Mr. Williams they can inspect unaccompanied. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $1,300.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | All One Storage, LLC |
| Property Address: | W223N2554 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin |
| Owner Address: | W100 Wilmont Drive<br>Waukesha, Wisconsin 53189 |
| Phone: | 262-547-8989 |
| Total Land Area: | 1.8637-acres or 81,183-square feet |
| Building Improvements: | The subject is improved with three self-storage buildings |
| Assessor's Parcel Number: | PWC 0909999002 |
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Industrial/Commercial Development |
| As Improved: | Self-Storage |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Permanent Limited Easement: | 765 square feet or 0.017562 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $985,100 |
| Market Value Following Acquisition: | $985,100 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,300 |
| **Total Damages (Rounded):** | $1,300 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,300** |
| **Total:** | **$1,300** |


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C Comparable Land Sales
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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W223N2554 Duplainville Road. According Public Records, the site contains approximately 1.8637-acres or 81,183-square feet of land. The subject has generally level topography with an irregular shape. The site has average visibility and access. The parcel is improved with three self-storage buildings.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owner of the subject property is All One Storage, LLC. According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | February 16, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 1.8637-acres or 81,183-square feet. The subject is improved with three self-storage buildings.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 1.8637-acres or 81,183-square feet. The subject is improved with three self-storage buildings.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Permanent Limited Easement totaling 765-square feet or 0.17562-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

None noted.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 29 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a commercial/industrial use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

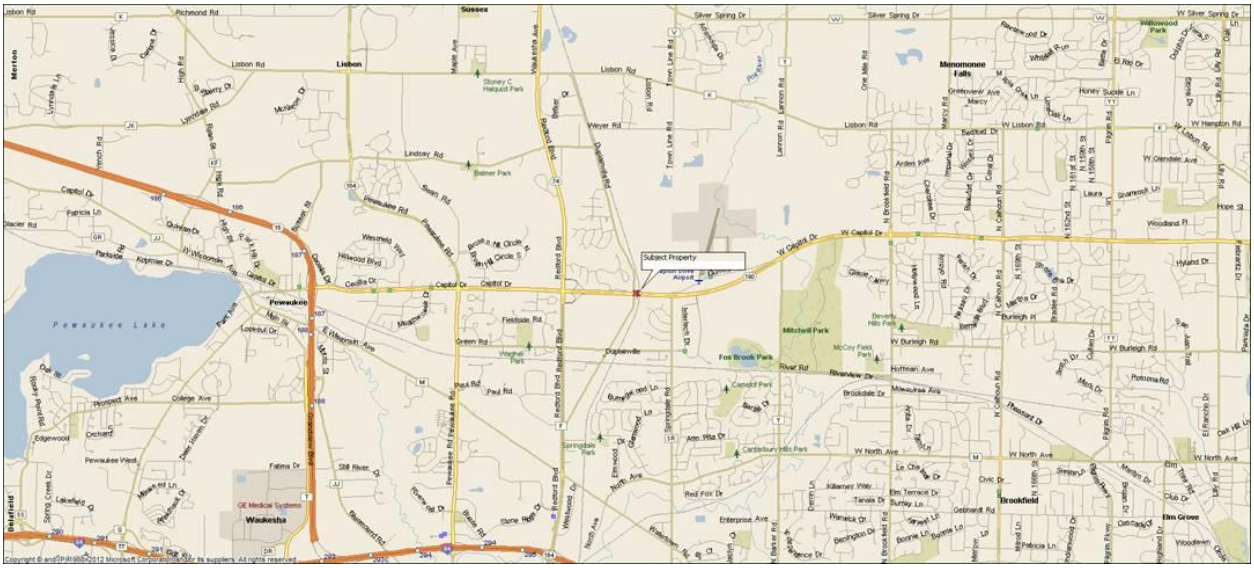

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeaster Waukesha County.

### NEIGHBORHOOD MAP


Subject Property
Pewaukee Lake
Pewaukee
Waukesha
Lisbon
Brookfield
Menomonee Falls
Elm Grove
Mitchell Park
Fox Brook Park
Canfield Park
Springdale Park
Canterbury Hills Park
Lindsay Rd
Weyer Rd
Capitol Dr
W Capitol Dr
Redford Blvd
Springdale Rd
Duplainville Rd
Lisbon Rd
W North Ave
W Burleigh Rd
Silver Spring Dr
W Silver Spring Dr
W Lisbon Rd
W Hampton Rd
W Glendale Ave
Woodland Pl
Hope St
Hyland Dr
Potomac Rd
Pilgrim Rd
Calhoun Rd
Brookfield Rd
Barker Rd
Lemon Rd
Lilly Rd
Merton
Delafield
Sussex
Richmond Rd
Silver Spring Dr
Menomonee Falls
Willowood Park
Greenview Ave
Honey Suckle Ln
Sadlford Dr
Arden Ave
Laura
Grandview Ln
Hyland Dr
Potomac Rd
Pilgrim Rd
Calhoun Rd
Brookfield Rd
Barker Rd
Lemon Rd
Lilly Rd
Elm Grove
Woodlawn Dr
Mitchell Park
Devonshire Hills Park
McCoy Field Park
Fox Brook Park
Canfield Park
Springdale Park
Canterbury Hills Park
Lindsay Rd
Weyer Rd
Capitol Dr
W Capitol Dr
Redford Blvd
Springdale Rd
Duplainville Rd
Lisbon Rd
W North Ave
W Burleigh Rd
Silver Spring Dr
W Silver Spring Dr
W Lisbon Rd
W Hampton Rd
W Glendale Ave
Woodland Pl
Hope St
Hyland Dr
Potomac Rd
Pilgrim Rd
Calhoun Rd
Brookfield Rd
Barker Rd
Lemon Rd
Lilly Rd
Merton
Delafield
Sussex
Richmond Rd
Pewaukee Lake
Pewaukee
Waukesha
Lisbon
Brookfield
Menomonee Falls
Elm Grove
Mitchell

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W223N2554 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along West Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 1.8637-acres or 81,183-square feet.

### Shape and Frontage

The subject is irregular in shape with approximately 783 lineal feet frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has an irregular shape and is generally level at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

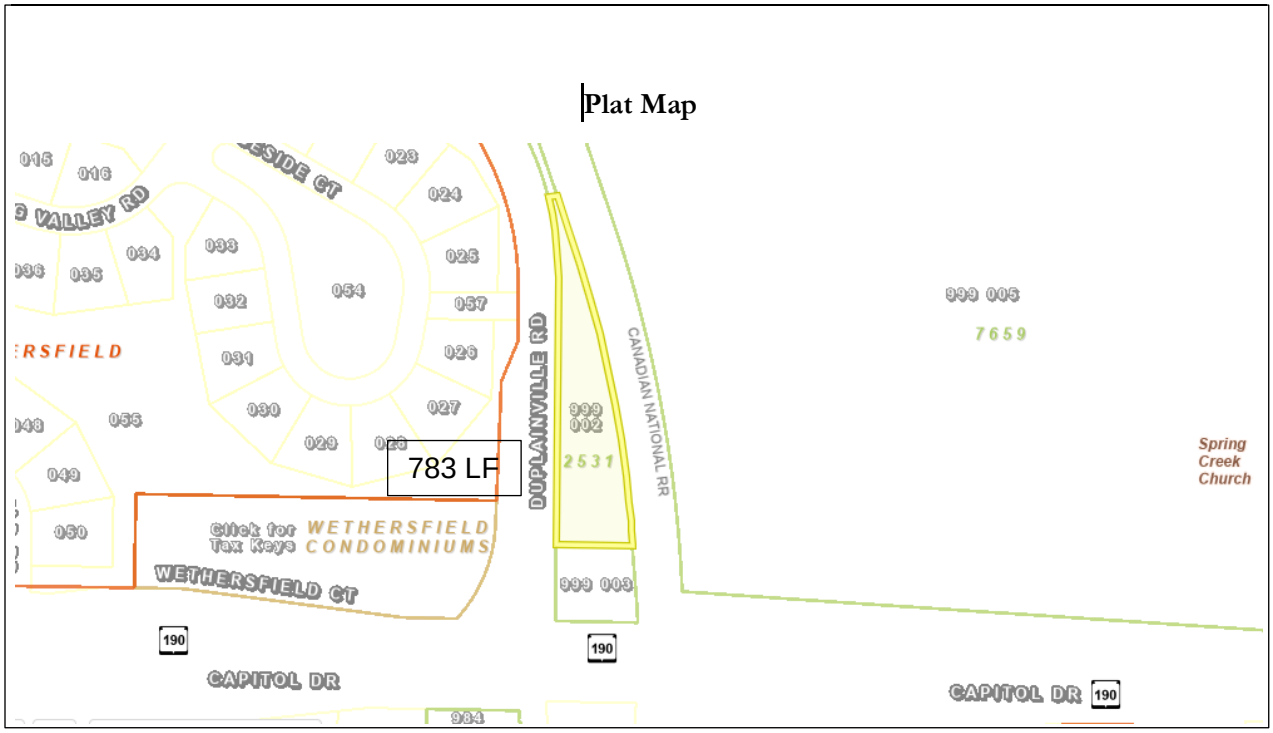
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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Plat Map




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within X as indicated on FEMA Community Map Panel 55133CO204G dated November 5, 2014. FEMA Zone X: Areas determined to be outside the 500 year flood plain.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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**Site Improvements**

The site is improved with three self-storage buildings. The improvements will not be impacted by the road project.

**Aerial Map**




**Larger Parcel**

According to Public Records, the site contains approximately 1.8637-acres or 81,183-square feet. The subject is improved with three self-storage buildings. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

**Conclusion**

The property is comprised of a single larger parcel containing 1.8637-acres or 81,183-square feet. The site topography is generally level and at road grade. The subject is irregular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Permitted Uses: | Wholesale businesses, wholesale storage |
| **Category** | **Zoning Requirement** |
| Front Setback: | 30-feet from right-of-way |
| Rear Setback: | 25-feet |
| Side Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 200' at building |
| Parking | As determined practical by the Plan Commission 17.0601 |
| Distance from Other Buildings | No closer than 50-feet from another building |
| Source: City of Pewaukee Zoning Code | |
| Compiled By: Single Source, Inc. | |

The property is considered to be a legal non-conforming use in the "before" and "after" condition. The subject property consists of 1.8637 acres "before" and will contain 1.8637 acres in the "after" as there is no fee acquisition associated with the subject property. The minimum lot size per the M-1 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0909999002 | $186,300 | $695,300 | $881,600 | $12,117.82 |
| Equalized Market Value @ 100% | $190,000 | $709,000 | $899,600 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $12,117.82 includes a First Dollar Credit of $66.80, storm water special assessment of $1,008.00 and fire inspection fee of $189.67.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned M-1, General Wholesale Business/Warehouse District. The M-1 General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission. The subject property does not comply with the current zoning standards as it does not meet the minimum lot area standard of 2.0 acres. However, the subject property could be built with a zoning variance from the City of Pewaukee.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally irregular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. However, the area near the subject site is generally improved with residential, commercial and industrial buildings properties. Based on the subject's specific location and physical characteristics, it is our opinion that an industrial use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics, it is our opinion that development of the site with a commercial use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

#### Conclusion: Highest and Best Use As Though Vacant

The concluded highest and best use of the subject as though vacant is industrial development.


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## HIGHEST AND BEST USE AS IMPROVED

### Legal Permissibility

The subject is a legal non-conforming use as improved per the M-1, General Wholesale Business/Warehouse District zoning code. According to measurements taken from the Waukesha County GIS the northern, southern, and eastern buildings do not appear to meet the minimum side and rear-yard setback of 25-feet. The northern building appears to be approximately 16-feet from the eastern property line, the southern building appears to be approximately 11–feet from the southern property line, and the eastern building appears to be approximately 20-feet from the eastern property line. Additionally, the northern building appears to be approximately 28-feet from the southern building and the southern building appears to be approximately 26-feet from the eastern building, which does not meet the zoning code requirement that buildings shall be no closer than 50-feet from another building.

### Physical Possibility

The layout and positioning of the improvements are functional for drive-up self-storage buildings, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current self-storage buildings.

### Financial Feasibility

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active industrial and commercial market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

### Conclusion: Highest and Best Use as Improved

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as self-storage buildings. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

### Conclusion: Highest and Best Use – Before Acquisition

The concluded highest and best use of the subject before the acquisition is continued use as three self-storage buildings.


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**Conclusion: Highest and Best Use – After Acquisition**

The concluded highest and best use of the subject after the acquisition is continued use as three self-storage buildings.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 81,183-square feet or 1.8637-acres in the "before" condition. The subject is improved with three self-storage buildings, in the "before" and "after" condition. Following the acquisition the subject site will remain at 81,183-square feet or 1.8637-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat No. 21-01, Plat Sheet No. 4.01 recorded February 10, 2022 are as shown below.

| | | |
|---|---|---|
| Subject Before Acquisition: | 81,183 SF | 1.8637-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Permanent Limited Easement: | 765 | 0.017562-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 81,183 SF | 1.8637-acres |

**Acquired Parcel**

None.

**Temporary Limited Easement**

None.

**Site Improvements**

None.

**Permanent Limited Easement**

A Permanent Limited Easement area, totaling 765-square feet or 0.17652 acres will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the site, required for culvert maintenance.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

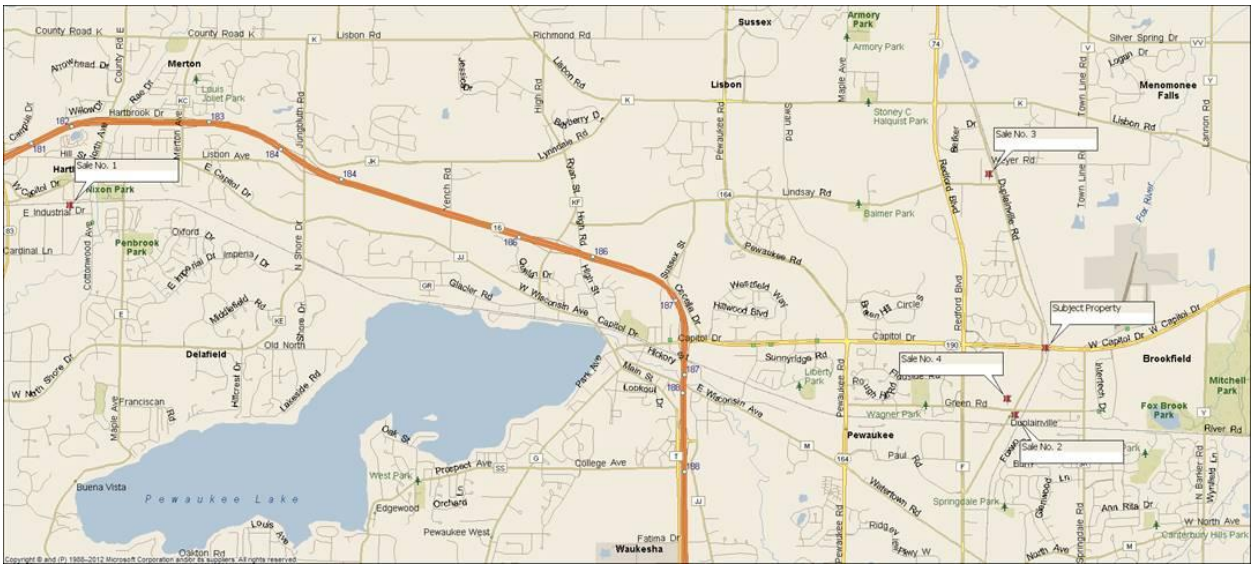
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




## ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $2.24 to $4.38 per square foot of land area. The primary differences between the comparable sales and the subject include market conditions, location, physical characteristics and size of the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.


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**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4014 Duplainville Rd. Pewaukee, WI | -- | 81,745 | 1.8766 | M-1 | -- | -- | |
| 1 | 440 E. Industrial Rd. Hartland, WI | Feb-21 | 131,425 | 3.0171 | M-1 | $575,000 | $4.38 | $190,580 |
| 2 | W226N2974 Duplainville Rd. Pewaukee, WI | Apr-20 | 83,744 | 1.9225 | M-2, LC | $210,000 | $2.51 | $109,233 |
| 3 | W227N4755 Duplainville Rd. Pewaukee, WI | Oct-18 | 445,885 | 10.2361 | M-2, LC | $998,058 | $2.24 | $97,504 |
| 4 | Green Rd. Pewaukee, WI | Feb-17 | 470,823 | 10.8086 | M-6 | $1,307,600 | $2.78 | $120,978 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation, due to the returned strength of the real estate markets. The inflationary increase is estimated at 3.00% percent per year for the subject area. All sales sold one year ago or longer and therefore require upward adjustments.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available but not currently connected. Sales No. 1, 2 and 3 have both sewer and water available so therefore no adjustments are required. Sale No. 4 has water available but not sewer and requires an upward adjustment.

**Size**

The subject site has a size of approximately 1.8637-acres or 81,183-square feet of land area. The comparable sales range from 83,744-square feet to 470,823-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale No. 2 is deemed similar in size compared to the subject site and requires no adjustment. Sale Nos. 1, 3 and 4 are deemed larger in size compared to the subject site and require varying degrees of upward adjustments.


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**Location**

The subject parcel is located along the east side of Duplainville, east of County Highway F, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W223 N2554 Duplainville Road. All Sales have similar locations to the subject site and do not require adjustment.

**Access/Visibility**

The subject property has average visibility from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale No. 3 is deemed similar in access and visibility to the subject site and requires no adjustment. Sale Nos. 1, 2 and 4 are deemed to have superior access and visibility to the subject site and require downward adjustment.

**Physical Features**

The subject is irregular in shape with generally level topography and at road grade. The balance of the subject site slopes downward towards the eastern property line which abuts a Canadian Pacific rail system. All sales abut rail systems so in our opinion no adjustment is required. All sales are generally rectangular in shape and deemed superior compared to the subject site and require downward adjustment.

**Zoning and Use**

The subject property is zoned M-1, General Wholesale Business/Warehouse District, which allows Wholesale Retail and Wholesale Storage and retail sales with Plan Commission approval. All sales have similar manufacturing, industrial, or business wholesale zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | | SUBJECT | SALE No. 1 | SALE No. 2 | SALE No. 3 | SALE No. 4 |
|---|---|---|---|---|---|---|
| Sale Price | | -- | $575,000 | $210,000 | $998,058 | $1,307,600 |
| Date of Sale | | -- | Feb-21 | Apr-20 | Oct-18 | Feb-17 |
| Net Site Size (SF) | | 81,745 | 131,425 | 83,744 | 445,885 | 470,823 |
| Price/SF | | -- | $ 4.38 | $ 2.51 | $ 2.24 | $ 2.78 |
| ADJUSTMENT PROCESS | | | $/SF | $/SF | $/SF | $/SF |
| Unadjusted Sale Price | | | $ 4.38 | $ 2.51 | $ 2.24 | $ 2.78 |
| Terms of Sale | | | 0.0% | 0.0% | 0.0% | 0.0% |
| | | | $ - | $ - | $ - | $ - |
| Cash Equivalent Price/SF | | | $ 4.38 | $ 2.51 | $ 2.24 | $ 2.78 |
| Time/Market Conditions | | | 2.77% | 5.47% | 9.75% | 14.82% |
| | | | $ 0.12 | $ 0.14 | $ 0.22 | $ 0.41 |
| Current CE Price/SF | | | $ 4.50 | $ 2.64 | $ 2.46 | $ 3.19 |
| DIRECT ADJUSTMENTS | | | | | | |
| Government Costs | | | 0.0% | 0.0% | 0.0% | 0.0% |
| | | | $ - | $ - | $ - | $ - |
| Soil/Environmental | | | 0.0% | 0.0% | 0.0% | 0.0% |
| | | | $ - | $ - | $ - | $ - |
| Utilities/Other Off-Site Costs | | | 0.0% | 0.0% | 0.0% | 10.0% |
| | | | $ - | $ - | $ - | $ 0.32 |
| Total Direct Adjustments | | | $ - | $ - | $ - | $ 0.32 |
| Adjusted CE Sale Price/SF | | | $ 4.50 | $ 2.64 | $ 2.46 | $ 3.51 |
| PERCENTAGE ADJUSTMENTS | | | | | | |
| Size (SF) | | 81,745 | 131,425 | 83,744 | 445,885 | 470,823 |
| | | | Larger | Similar | Larger | Larger |
| | | | 10% | 0% | 20% | 20% |
| | | | $ 0.45 | $ - | $ 0.49 | $ 0.70 |
| Market Area/Location | | Pewaukee | Similar | Similar | Similar | Similar |
| | | | 0% | 0% | 0% | 0% |
| | | | $ - | $ - | $ - | $ - |
| Access/Visibility | | Average/Average | Superior | Superior | Similar | Superior |
| | | | -5% | -5% | 0% | -5% |
| | | | (0.22) | (0.13) | - | (0.18) |
| Other Physical Features | | Irregular | Superior | Superior | Superior | Superior |
| | | | -5% | -5% | -5% | -5% |
| | | | (0.22) | (0.13) | (0.12) | (0.18) |
| Zoning | | M-1 | M-1 | M-2, LC | M-2, LC | M-6 |
| | | | 0% | 0% | 0% | 0% |
| | | | $ - | $ - | $ - | $ - |
| Total Adjustments | | | $ - | $ (0.26) | $ 0.37 | $ 0.35 |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **4.50** | **2.38** | **2.83** | **3.86** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 3.39** | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$ 3.40** | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **81,183** | | | |
| **CONCLUDED LAND VALUE** | | | **$ 276,022** | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 276,100** | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $2.38 to $4.50 per square foot, with an average of $3.39 per square foot. Primary weight was placed on Sales 1 and 2 as they required the least amount of adjustment. Secondary weight was placed on Sales 3 and 4. Based on this analysis, the subject property is estimated to have a value near the average at $3.40 per square foot, between all four sales, which are all deemed similar to the subject site.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 81,183 | X | $3.40 | = | $276,022 |

**Value Indication (Rounded): $276,100**

**Before Value**

The total "before" value is $985,100 ($276,100 - land + $709,000 - improvements, per assessment, rounded).

**Valuation of Permanent Limited Easement**

One Permanent Limited Easement (PLE), totaling 0.017562-acres or 765-square feet will encumber the subject. The Permanent Limited Easement is an area of vacant land located along the west side of the site. The Permanent Limited Easement area is required for culvert maintenance.

It is our opinion that the Permanent Limited Easement area has some, but limited utility to the owner after the acquisition due to the presence of the culvert. The easement is located in the building setback area, hence, an area where improvements are not allowed to be built. The damages for Permanent Limited Easement are estimated at 50 percent of fee value of $3.40 per square foot ($3.40/SF X 50%), or $1.70 per square foot due to the loss of utility to the subject property in the "after" condition.

**Acquired Land Value Conclusion – Permanent Limited Easement**

**Acquired Land Value**
**Permanent Limited Easement**

| SF | X | Value/SF | = | Value |
|---|---|---|---|---|
| 765 | X | $1.70 | = | $1,300 |

**Land Value Indication (Rounded): $1,300**


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**Valuation of Site Improvements**

There are no site improvements located within the Permanent Limited Easement area, therefore, no compensation is allocated.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $985,100 ($276,100 - land + $709,000 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $985,100 |
| Market Value Following Acquisition: | $985,100 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,300 |
| **Total Damages (Rounded):** | $1,300 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,300** |
| **Total:** | **$1,300** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**ENTRANCE TO SUBJECT PROPERTY**



**SUBJECT PROPERTY LOOKING SOUTHEAST**


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**PLE LOOKING NORTH**



**PLE LOOKING SOUTH**


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | 440 East Industrial Drive<br>Village of Hartland, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 3.0171-acres |
| Zoning: | M-1 Limited Manufacturing and Wholesale Business District |
| Topography: | Generally level with slightly rolling |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | HAV-0729-947-007 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 26, 2021 |
| Sale Price: | $575,000 |
| Sale Price/SF: | $4.38 |
| Sale Price/Acre: | $190,580 |
| Grantor: | Ronald D. Jaeger |
| Grantee: | Joseph Grasch Development, LLC |
| Document No.: | 4561684 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 2 of Certified Survey Map No. 8334 recorded in theoffice of the Register of Deeds for Waukesha County,Wisconsin, on August 22, 1997 in Volume 73 of CertifiedSurvey Maps, at Page 48, as Document No. 2239828, being aredivision of Lot 1 of Certified Survey Map No. 7438, being apart of the Southwest 1/4 of the Northeast 1/4 of Section 3,Town 7 North, Range 18 East, in the Village of Hartland,County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the north side of East Industrial Drive, just west of Cottonwood Avenue and east of State Highway 16. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-1 and allows for wholesale business uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 2



**Property Identification**

| | |
|---|---|
| Location: | W226N2974 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 1.9225-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Downward sloping and level |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0914992001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | April 30, 2020 |
| Sale Price: | $210,000 |
| Sale Price/SF: | $2.51 |
| Sale Price/Acre: | $109,233 |
| Grantor: | NJT Development of Pewaukee, LLC |
| Grantee: | Duplainville Land Company, LLC |
| Document No.: | 4465218 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Lot One (1) of CERTIFIED SURVEY MAP NO. 11828, being part of the Northeast One-quarter (1/4) of the Northwest Onequarter (1/4) of Section Thirteen (13), Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on March 25, 2019 in Book 119, Pages 161 through 163 inclusive, as Document No. 4388415, as corrected by an Affidavit of Correction recorded on April 19, 2019 as Document No. 4392328. |


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**Comments:**

The parcel is located along the east side of Duplainville Road, just south of Green Road. The property abuts the CP Rail system. The property has average access and visibility with general level topography, slightly below street grade, with downward sloping topography toward the rail line. The property is zoned M-2 and LC and allows for manufacturing and related office uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | W227 N4755 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.2361-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0866997004 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | October 31, 2018 |
| Sale Price: | $998,058 |
| Sale Price/SF: | $2.24 |
| Sale Price/Acre: | $97,504 |
| Grantor: | MH Land, LLC |
| Grantee: | KD Glass, LLC |
| Document No.: | 4369569 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, MLS, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description: PARCELS 1-3 OF CERTIFIED SURVEY MAP NO. 8264,RECORDED ON MAY 1, 1997, IN VOLUME 72 OFCERTIFIED SURVEY MAPS ON PAGES 120 TO 123,INCLUSIVE AS DOCUMENT NO. 2209268, BEING ADIVISION OF LANDS IN THE NORTHWEST ¼ OF THENORTHWEST ¼ OF SECTION 1, TOWN 7 NORTH, RANGE19 EAST, CITY OF PEWAUKEE, COUNTY OF WAUKESHA,STATE OF WISCONSIN.

**Comments:**
The parcel is located along the west side of Duplainville Road, just north of Lindsay. The property is locatged across the road from the CP Rail system. The property has average access and visibility with generally level topography. The property is zoned M-2 and LC and allows for manufacturing and related office uses. The site is serviced with water and sewer. The property was developed with an industrial use property post-sale.

**Parcel Map**





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## LAND SALE NO. 4




**Property Identification**

| | |
|---|---|
| Location: | Green Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.8086-acres |
| Zoning: | M-6 Mixed Industrial Use District |
| Topography: | Generally Level |
| Utilities: | Water, no sewer |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0914987 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 21, 2017 |
| Sale Price: | $1,307,600 |
| Sale Price/SF: | $2.78 |
| Sale Price/Acre: | $120,978 |
| Grantor: | Schmidt Family Investments Limited Partnership |
| Grantee: | IP Green Road, LLC |
| Document No.: | 4264141 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records, Interstate Partners, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description:

All that part of the North One-half (1/2) of the Northwest One-quarter (1/4) of Section Thirteen (13), in Township Seven (7)North, Range Nineteen (19) East, in the City of Pewaukee,County of Waukesha, State of Wisconsin, described asfollows, to-wit: Beginning at a point in the North line of saidSection, 687 feet East of the Northwest corner, thence Easton the Section line 1456 feet to the intersection of the highways; thence South 27° West along the center of thehighway 652 feet to the North line of the Chicago, Milwaukee& St. P. Ry.; thence West along the North line of said Railway1213 feet; thence North 5° East 606 feet to the place ofbeginning. Excepting therefrom those lands conveyed in aWarranty Deed recorded on November 19, 1900 in Volume 71of Deeds, at Page 230, as Document No. 43543; and in aWarranty Deed recorded on May 27, 1889 in Volume 74 ofDeeds, at Page 111, as Document No. 14005; and in aWarranty Deed recorded on November 19, 1892 in Volume 89of Deeds, at Page 34, as Document No. 30659; and in aWarranty Deed recorded on January 20, 1945 in Volume 365of Deeds, at Page 446, as Document No. 270818; and in aConveyance of Lands recorded on August 19, 1952 in Volume582, at Page 11, as Document No. 369391; and in a WarrantyDeed recorded on June 20, 1958 in Volume 775 of Deeds, atPage 337, as Document No. 479976.

**Comments:**

The parcel is located along the south side of Green Road just east of Duplainville Road. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-6 and allows for industrial uses. The site is serviced with water not sewer. The property is currently being marketed by Interstate Partners for a speculative 140,000 square foot industrial use building.


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**Parcel Map**



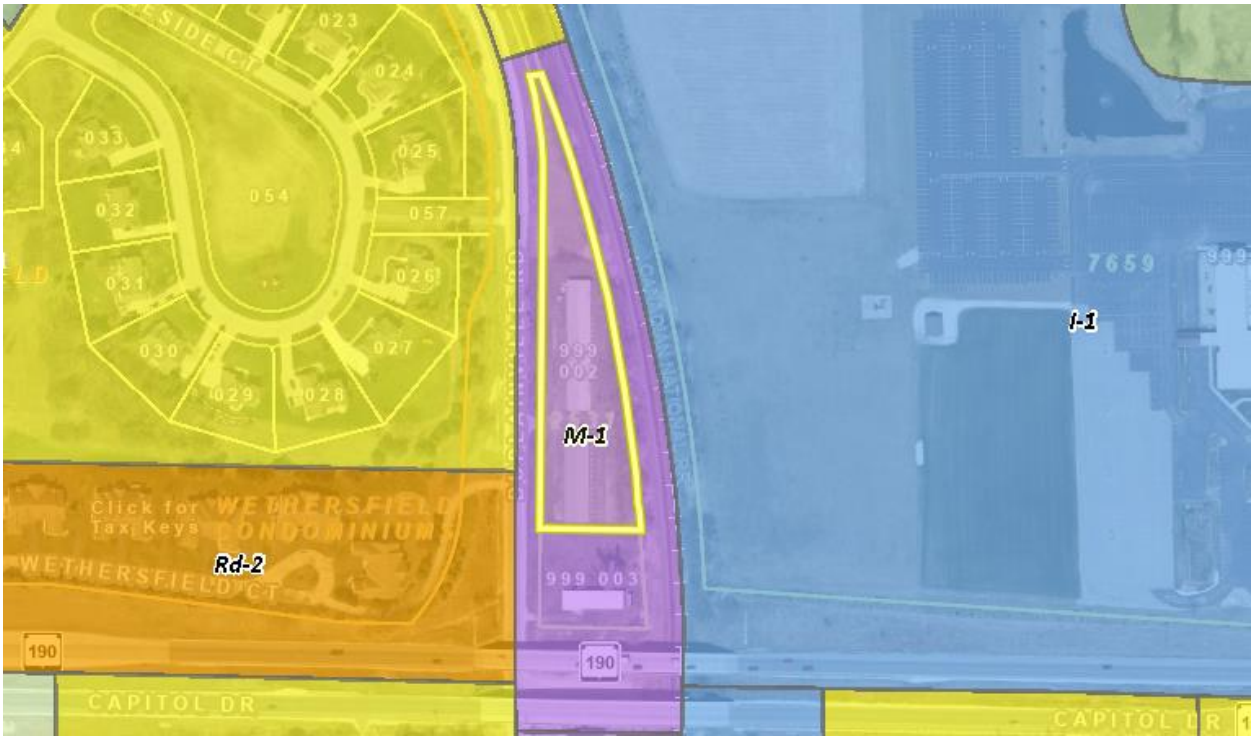


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# ADDENDUM D
# ZONING MAP & CODE


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 66 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0423 M-1, GENERAL WHOLESALE BUSINESS/WAREHOUSE DISTRICT**
The M-1, General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission.
a. Permitted Principal Uses
(1) Establishments for the wholesale sale of goods and materials (other than chemical, flammable liquid, gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from public streets, roads, or highways and adjacent uses and where the individual goods or materials are not reduced in size or basically changed in character.
(2) Buildings or yards for the storage of wholesale goods and materials (other than chemicals, flammable liquids, and gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from passersby, public streets, roads, or highways and adjacent uses, and where the individual goods or materials are not reduced in size or basically changed in character.
(3) Commercial Kennels. (Cr. 13-09) b. Permitted Accessory Uses
(1) Offices, or garages for storage of licensed vehicles used in conjunction with the operation of the business or for occupants of the premises.
(2) Screened off-street parking and loading access, including parking ramps and garages.
(3) (See Section 17.0700).


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(4) The storage of not more than 10,000 gallons of fuel and petroleum products for use incidental to the principal use and upon specific approval of the Plan Commission after recommendation by the Fire Chief.
c. Conditional Uses
(1) Establishments for the temporary storage of vehicles used in the transport of goods and materials.
(2) Establishments for the transfer of wholesale goods and materials from one transport vehicle to another.
(3) Buildings, structures, or tanks used for the storage of chemicals, flammable liquids, and gaseous or vaporous substances, other than permitted accessory uses, upon specific approval of the Plan Commission after recommendation by the Fire Chief.
(4) Yards and structures used for the temporary storage or holding of animals not for slaughter.
(5) Warehouses used, or designed to be used, for the storage of domestic household goods, "dead" files and other limited time and use storage.
(6) Residential quarters for the owner or hired caretaker provided that such quarters are in the principal building, not more than 750 square feet in area, no more than two (2) bedrooms, and not for rent, lease or separate sale.
(7) Yards for the storage of bulk construction products when screened from view.
d. Lot Area and Width
(1) Lots shall have a minimum area of two (2) acres.
(2) Lots shall not be less than 200 feet in width at the building setback line.
e. Building Height and Size (See Section 17.0210)
(1) No principal building, no part of a principal building, and no goods or materials stored shall exceed 35 feet in height.
(2) No accessory building shall exceed 18 feet in height.
f. Setback and Yards
(I) There shall be a minimum building (or street) setback of 30 feet from the right-of-way of all streets, roads, or highways.
(2) There shall be a side yard on each side of all buildings not less than 25 feet in width and buildings shall be no closer than 50 feet from another building.
(3) There shall be a rear yard of not less than 25 feet.
(4) All structures and storage yards shall be set back a minimum 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see subsection 17.0435)
g. Parking and Loading Space
(1) There shall be adequate paved off-street parking space provided for the intended use of the property and no on-street parking or on-street vehicle maneuvering will be allowed in the vicinity of the property. (Also see subsection 17.0210 and section 17.0600).
(2) There shall be adequate paved off-street loading area provided to accommodate all necessary loading and unloading activities on the premises, and no loading dock or area shall be located closer than 100 feet from the right-of-way of a public access street.
(3) All parking and loading areas shall be adequately screened as determined by the Plan Commission.
(4) There shall be no driveway, parking or loading area within 25 feet of a street right-of-way or 15 feet of an adjacent property.
h. Minimum Utility Service
Electricity, and where available, public sewer and water supply.
i. Special Regulations
To encourage wholesale business use environment that is compatible with the residential character of the City, a Building and/or Zoning permits for permitted uses in the M-1 District shall not be issued without prior review by and approval of the City Plan Commission. Said review and approval shall be concerned with existing and planned adjacent uses, need for public or private water supply and sanitary sewage disposal facilities, general site layout, building and operation plans, ingress, egress, drainage, lighting, signage, parking, loading and unloading, screening and landscape plans.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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PARCEL ONE (I) OF CERTIFIED SURVEY MAP NO. 2531, BEING A REDIVISION OF PARCEL LETTERED "B" OF CERTIFIED SURVEY MAP NO. 2100, BEING A PART OF THE NORTHEAST ONE-QUARTER (1/4) OF SECTION TWELVE (12), IN TOWNSHIP SEVEN (7) NORTH, RANGE NINETEEN (19) EAST, IN THE CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS FOR WAUKESHA COUNTY ON APRIL 1, 1976, IN VOLUME 18 OF CERTIFIED SURVEY MAPS ON PAGES 221 TO 224 INCLUSIVE, AS DOCUMENT NO. 944874. CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

TAX KEY NO.: PWC 0909999002

ADDRESS: W223N2554 DUPLAINVILLE ROAD.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 2**
**Owner: All One Storage, LLC**
**Interest: PLE**

Parcel No. 2 of Transportation Project Plat 21-01-4.01 recorded as Document #4651214, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel No. 2 consist of:

**Permanent Limited Easement**

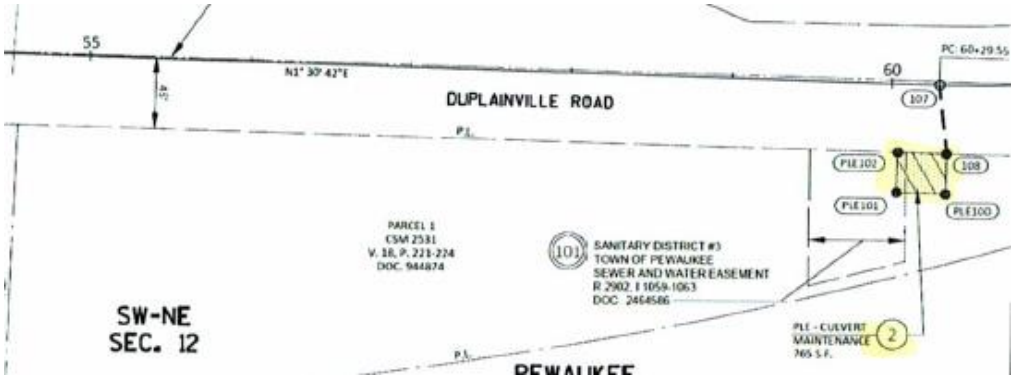

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**ADDENDUM F**

**ACQUISITION PLAT**


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**ACQUISITION PLAT**



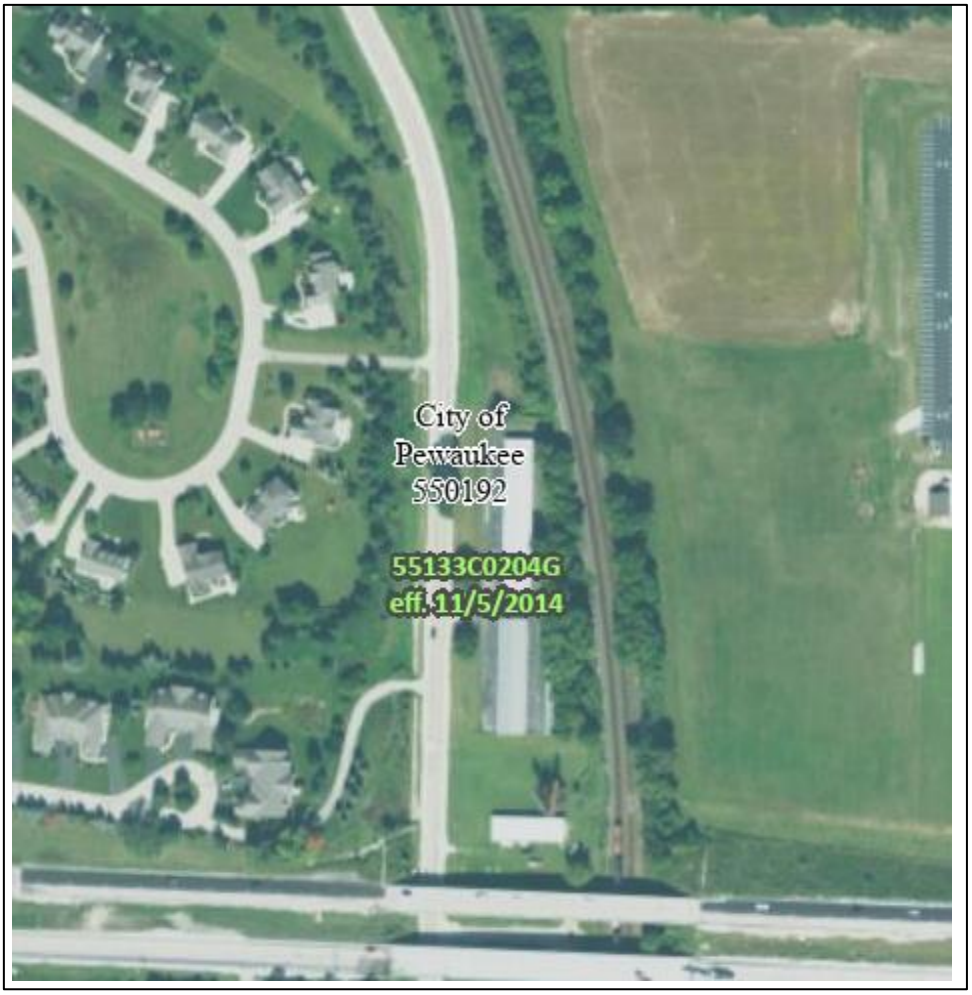


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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**ADDENDUM H**
**QUALIFICATIONS**

## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W225N4140 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 5

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

February 23, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 5

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4140 Duplainville Road. According Public Records, the site contains approximately 1.9740-acres or 85,987-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with an office building.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W225N4140 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**ONE THOUSAND NINE HUNDRED DOLLARS**

**($1,900)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $582,300 |
| Market Value Following Acquisition: | $582,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,900 |
| **Total Damages (Rounded):** | $1,900 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,900** |
| **Total:** | **$1,900** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

I certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Jason Williams spoke with Edward A. Wistl, owner, via telephone and invited him to accompany the appraisers on the inspection. Mr. Wistl declined but told Mr. Williams they can inspect unaccompanied. Therefore, on Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $1,900.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Edward A. & Penny A. Wistl |
| Property Address: | W225N4140 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin |
| Owner Address: | W262N4403 Ryan Street<br>Waukesha, Wisconsin 53072 |
| Phone: | 414-881-5478 |
| Total Land Area: | 1.9740-acres or 85,987-square feet |
| Building Improvements: | The subject is improved with an office building |
| Assessor's Parcel Number: | PWC 0867998001 |
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Industrial/Commercial Development |
| As Improved: | Office Building |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Permanent Limited Easement: | 1,041 square feet or 0.0239 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $582,300 |
| Market Value Following Acquisition: | $582,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,900 |
| **Total Damages (Rounded):** | $1,900 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,900** |
| **Total:** | **$1,900** |


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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4140 Duplainville Road. According Public Records, the site contains approximately 1.9740-acres or 85,987-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with an office building.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owner of the subject property is Edward A. and Penny A. Wistl. According to public records and a discussion with owner Edward A. Wistl, the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | February 19, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 1.9740-acres or 85,987-square feet. The subject is improved with an office building.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 1.9740-acres or 85,987-square feet. The subject is improved with an office building.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Permanent Limited Easement totaling 1,041-square feet or 0.0239-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

None noted.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 29 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a commercial/industrial use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

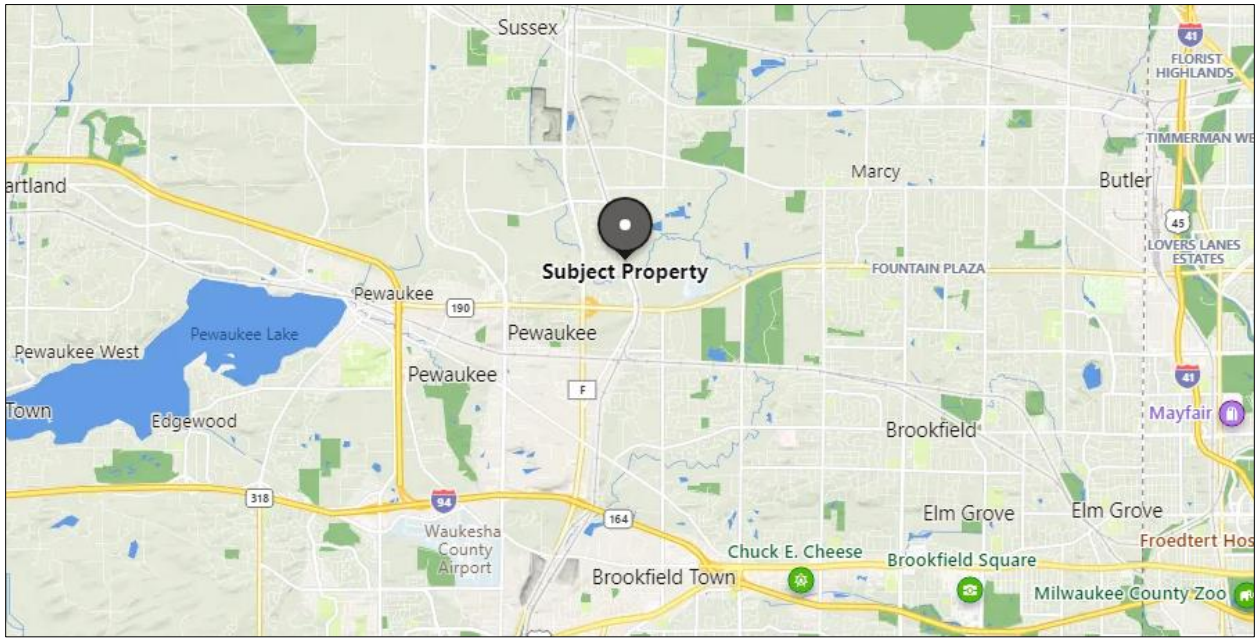

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.

Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area


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of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4140 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 1.9740-acres or 85,987-square feet.

### Shape and Frontage

The subject is rectangular in shape with approximately 363 lineal feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has a rectangular shape and is generally level and below road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available and connected to the site.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

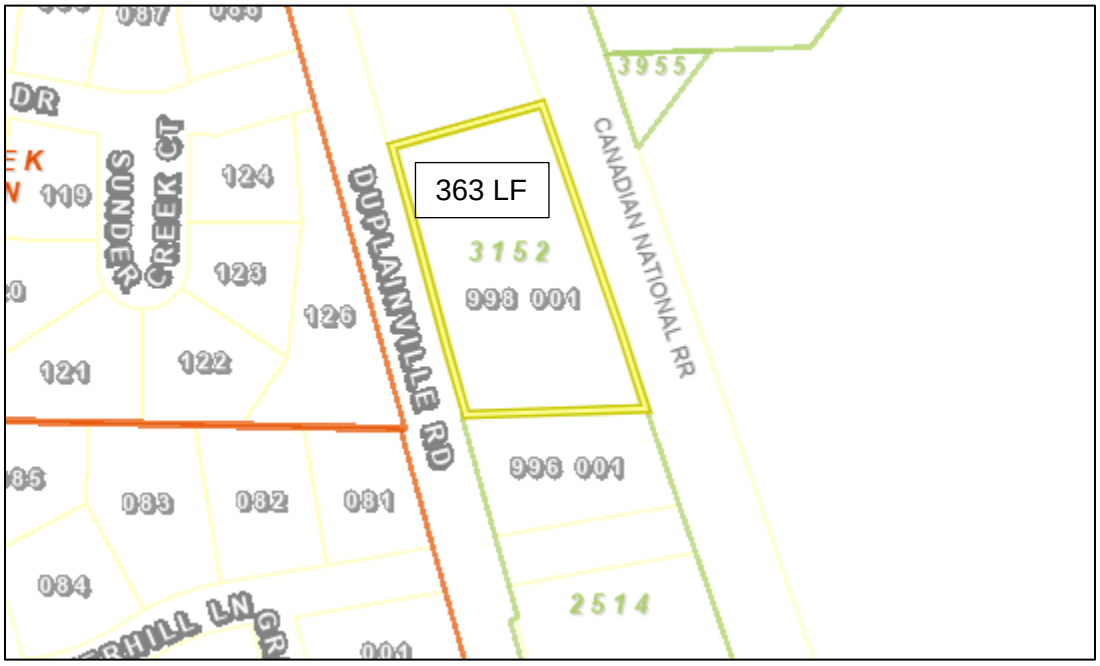
No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within X as indicated on FEMA Community Map Panel 55133CO204G dated November 5, 2014. FEMA Zone X: Areas determined to be outside the 500 year flood plain.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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**Site Improvements**

The site is improved with an office building. The improvements will not be impacted by the road project.

**Aerial Map**




**Larger Parcel**

According to Public Records, the site contains approximately 1.9740-acres or 85,987-square feet. The subject is improved with an office building. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

**Conclusion**

The property is comprised of a single larger parcel containing 1.9740-acres or 85,987-square feet. The site topography is generally level and below road grade. The subject is rectangular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available to the site.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | M-1, General Wholesale Business/Warehouse District |
| Permitted Uses: | Wholesale businesses, wholesale storage |
| **Category** | **Zoning Requirement** |
| Front Setback: | 30-feet from right-of-way |
| Rear Setback: | 25-feet |
| Side Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 200' at building |
| Parking | As determined practical by the Plan Commission 17.0601 |
| Distance from Other Buildings | No closer than 50-feet from another building |
| Source: City of Pewaukee Zoning Code | |
| Compiled By: Single Source, Inc. | |

The property is considered to be a legal non-conforming use in the "before" and "after" condition. The subject property consists of 1.9740 acres "before" and will contain 1.9740 acres in the "after" condition. The minimum lot size per the M-1 zoning classification is 2.0 acres. Please see zoning code in the addendum of this report.


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

**Ad Valorem Tax Information**

| Parcel | Land | Improvements | Total | Taxes |
|---|---|---|---|---|
| PWC 0867998001 | $148,100 | $275,900 | $424,000 | $5,312.13 |
| Equalized Market Value @ 100% | $151,000 | $281,300 | $432,300 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |

Source: Tax Bill
Compiled By: Single Source, Inc.

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $5,312.13 includes a First Dollar Credit of $66.80, special assessment of $94.82 and fire inspection fee of $94.82.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned M-1, General Wholesale Business/Warehouse District. The M-1 General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission. The subject property does not comply with the current zoning standards as it does not meet the minimum lot area standard of 2.0 acres. However, the subject property could be developed with a zoning variance from the City of Pewaukee.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally rectangular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. However, the area near the subject site is generally improved with residential, commercial and industrial buildings properties. Based on the subject's specific location and physical characteristics, it is our opinion that an industrial or commercial use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics, it is our opinion that development of the site with a commercial use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

#### Conclusion: Highest and Best Use As Though Vacant

The concluded highest and best use of the subject as though vacant is industrial or commercial development.


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## HIGHEST AND BEST USE AS IMPROVED

### Legal Permissibility

The subject appears to be a legal and conforming use as improved per the M-1, General Wholesale Business/Warehouse District zoning code.

### Physical Possibility

The layout and positioning of the improvements are functional for an office building, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current office building.

### Financial Feasibility

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active industrial and commercial market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

### Conclusion: Highest and Best Use as Improved

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as an office building. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

### Conclusion: Highest and Best Use – Before Acquisition

The concluded highest and best use of the subject before the acquisition is continued use as an office building.

### Conclusion: Highest and Best Use – After Acquisition

The concluded highest and best use of the subject after the acquisition is continued use as an office building.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 85,987-square feet or 1.9740-acres in the "before" condition. The subject is improved with an office building, in the "before" and "after" condition. Following the acquisition the subject site will remain at 85,987-square feet or 1.9740-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat No. 21-01, Plat Sheet No. 4.03 recorded on February 15, 2022 are as shown below.

| | | |
|---|---|---|
| Subject Before Acquisition: | 85,987 SF | 1.9740-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Permanent Limited Easement: | 1,041 | 0.0239-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 85,987 SF | 1.9740-acres |

**Acquired Parcel**

None.

**Temporary Limited Easement**

None.

**Site Improvements**

None.

**Permanent Limited Easement**

A Permanent Limited Easement area, totaling 1,041-square feet or 0.0239 acres will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the site, required for culvert maintenance.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

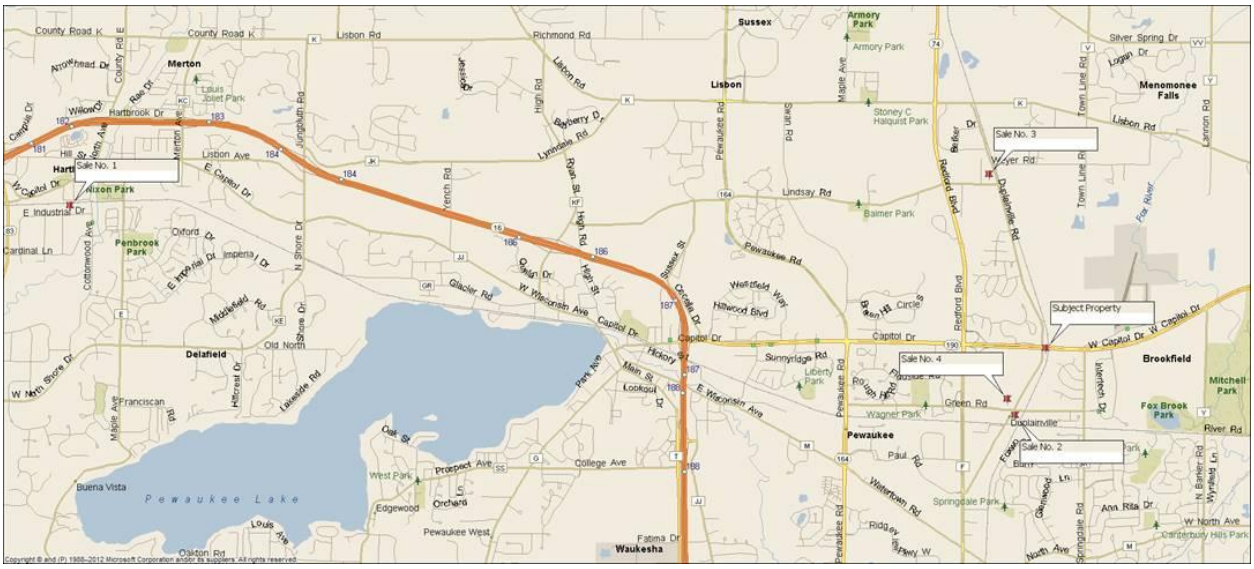
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

### Land Sale Map




## ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $2.24 to $4.38 per square foot of land area. The primary differences between the comparable sales and the subject include market conditions, location, physical characteristics and size of the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.


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**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4140 Duplainville Rd. Pewaukee, WI | -- | 85,987 | 1.9740 | M-1 | -- | -- | |
| 1 | 440 E. Industrial Dr. Hartland, WI | Feb-21 | 131,425 | 3.0171 | M-1 | $575,000 | $4.38 | $190,580 |
| 2 | W226N2974 Duplainville Rd. Pewaukee, WI | Apr-20 | 83,744 | 1.9225 | M-2, LC | $210,000 | $2.51 | $109,233 |
| 3 | W227N4755 Duplainville Rd. Pewaukee, WI | Oct-18 | 445,885 | 10.2361 | M-2, LC | $998,058 | $2.24 | $97,504 |
| 4 | Green Rd. Pewaukee, WI | Feb-17 | 470,823 | 10.8086 | M-6 | $1,307,600 | $2.78 | $120,978 |

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**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation, due to the returned strength of the real estate markets. The inflationary increase is estimated at 3.00% percent per year for the subject area. All sales over one year from the date of value were adjusted upward.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available and are connected. Sales No. 1, 2 and 3 have both sewer and water available therefore no adjustments are required. Sale No. 4 has water available but not sewer and requires an upward adjustment.

**Size**

The subject site has a size of approximately 1.9740-acres or 85,987-square feet of land area. The comparable sales range from 83,744-square feet to 470,823-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale No. 2 is deemed similar in size compared to the subject site and requires no adjustment. Sale Nos. 1, 3 and 4 are deemed larger in size compared to the subject site and require varying degrees of upward adjustment.


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**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4140 Duplainville Road. All Sales have similar locations to the subject site and do not require adjustment.

**Access/Visibility**

The subject property has average visibility from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale No. 3 is deemed similar in access and visibility to the subject site and requires no adjustment. Sale Nos. 1, 2 and 4 are deemed to have superior access and visibility to the subject site and require downward adjustment.

**Physical Features**

The subject is rectangular in shape with generally level topography and below road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system. All sales abut rail systems, therefore in our opinion no adjustment is required. All comparable sales have similar physical features to the subject site and do not require adjustment.

**Zoning and Use**

The subject property is zoned M-1, General Wholesale Business/Warehouse District, which allows Wholesale Retail and Wholesale Storage and retail sales with Plan Commission approval. All sales have similar manufacturing, industrial, or business wholesale zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 | | SALE No. 4 |
|---|---|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $575,000 | | $210,000 | | $998,058 | | $1,307,600 |
| Date of Sale | | -- | Feb-21 | | Apr-20 | | Oct-18 | | Feb-17 |
| Net Site Size (SF) | | 85,987 | 131,425 | | 83,744 | | 445,885 | | 470,823 |
| Price/SF | | -- | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 4.38 | | $ 2.51 | | $ 2.24 | | $ 2.78 |
| Time/Market Conditions | | | 2.77% | | 5.47% | | 9.75% | | 14.82% |
| | | | $ 0.12 | | $ 0.14 | | $ 0.22 | | $ 0.41 |
| Current CE Price/SF | | | $ 4.50 | | $ 2.64 | | $ 2.46 | | $ 3.19 |
| DIRECT ADJUSTMENTS | | | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 0.0% | | 0.0% | | 0.0% | | 10.0% |
| | | | $ - | | $ - | | $ - | | $ 0.32 |
| Total Direct Adjustments | | | $ - | | $ - | | $ - | | $ 0.32 |
| Adjusted CE Sale Price/SF | | | $ 4.50 | | $ 2.64 | | $ 2.46 | | $ 3.51 |
| PERCENTAGE ADJUSTMENTS | | | | | | | | | |
| Size (SF) | 85,987 | | 131,425 | | 83,744 | | 445,885 | | 470,823 |
| | | | Larger | | Similar | | Larger | | Larger |
| | | | 10% | | 0% | | 20% | | 20% |
| | | | $ 0.45 | | $ - | | $ 0.49 | | $ 0.70 |
| Market Area/Location | Pewaukee | | Similar | | Similar | | Similar | | Similar |
| | | | 0% | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Access/Visibility | Average/Average | | Superior | | Superior | | Similar | | Superior |
| | | | -5% | | -5% | | 0% | | -5% |
| | | | (0.22) | | (0.13) | | - | | (0.18) |
| Other Physical Features | Rectangular | | Similar | | Similar | | Similar | | Similar |
| | | | 0% | | 0% | | 0% | | 0% |
| | | | - | | - | | - | | - |
| Zoning | M-1 | | M-1 | | M-2, LC | | M-2, LC | | M-6 |
| | | | 0% | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ 0.22 | | $ (0.13) | | $ 0.49 | | $ 0.53 |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **4.72** | | **2.51** | | **2.95** | | **4.03** |

| | | |
|---|---|---|
| **AVERAGE ADJUSTED SALES PRICE/SF** | **$** | **3.55** |
| **CONCLUDED LAND VALUE/SF** | **$** | **3.50** |
| **SUBJECT SQUARE FOOTAGE** | | **85,987** |
| **CONCLUDED LAND VALUE** | **$** | **300,955** |
| **CONCLUDED LAND VALUE ROUNDED** | **$** | **301,000** |

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**Land Value Conclusion**

After adjustments, the sale prices range from $2.51 to $4.72 per square foot, with an average of $3.55 per square foot. To arrive at a concluded unit value a weighted average was applied to all sales. Primary weight was placed on Sale 2 because it required the least amount of adjustment. Secondary weight was placed on Sale 1 with tertiary weight placed equally on Sales 3 and 4. Based on this analysis, the subject property is estimated to have a value near the average at $3.50 per square foot, between all four sales, which are all deemed similar to the subject site.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 85,987 | X | $3.50 | = | $300,955 |
| **Value Indication (Rounded):** | | | | **$301,000** |

**Before Value**

The total "before" value is $582,300 ($301,000 - land + $281,300 - improvements, per assessment, rounded).

**Valuation of Permanent Limited Easement**

One Permanent Limited Easement (PLE), totaling 0.0239-acres or 1,041-square feet will encumber the subject. The Permanent Limited Easement is an area of vacant land located along the west side of the site. The Permanent Limited Easement area is required for culvert maintenance.

It is our opinion that the Permanent Limited Easement area has some, but limited utility to the owner after the acquisition due to the presence of the culvert. The easement is located in the building setback area, hence, an area where improvements are not allowed to be built. The damages for Permanent Limited Easement are estimated at 50 percent of fee value of $3.50 per square foot ($3.50/SF X 50%), or $1.75 per square foot due to the loss of utility to the subject property in the "after" condition.

**Acquired Land Value Conclusion – Permanent Limited Easement**

**Acquired Land Value**
**Permanent Limited Easement**

| SF | X | Value/SF | = | Value |
|---|---|---|---|---|
| 1,041 | X | $1.75 | = | $1,822 |
| **Land Value Indication (Rounded):** | | | | **$1,900** |


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**Valuation of Site Improvements**

There are no site improvements located within the Permanent Limited Easement area, therefore, no compensation is allocated.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $582,300 ($301,000 - land + $281,300 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $582,300 |
| Market Value Following Acquisition: | $582,300 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $1,900 |
| **Total Damages (Rounded):** | $1,900 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$1,900** |
| **Total:** | **$1,900** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT PROPERTY LOOKING EAST**



**PERMANENT LIMITED EASEMENT AREA (PLE)**


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**PLE LOOKING NORTH**



**PLE LOOKING SOUTH**


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | 440 East Industrial Drive<br>Village of Hartland, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 3.0171-acres |
| Zoning: | M-1 Limited Manufacturing and Wholesale Business District |
| Topography: | Generally level with slightly rolling |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | HAV-0729-947-007 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 26, 2021 |
| Sale Price: | $575,000 |
| Sale Price/SF: | $4.38 |
| Sale Price/Acre: | $190,580 |
| Grantor: | Ronald D. Jaeger |
| Grantee: | Joseph Grasch Development, LLC |
| Document No.: | 4561684 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 2 of Certified Survey Map No. 8334 recorded in theoffice of the Register of Deeds for Waukesha County,Wisconsin, on August 22, 1997 in Volume 73 of CertifiedSurvey Maps, at Page 48, as Document No. 2239828, being aredivision of Lot 1 of Certified Survey Map No. 7438, being apart of the Southwest 1/4 of the Northeast 1/4 of Section 3,Town 7 North, Range 18 East, in the Village of Hartland,County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the north side of East Industrial Drive, just west of Cottonwood Avenue and east of State Highway 16. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-1 and allows for wholesale business uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 2



**Property Identification**

| | |
|---|---|
| Location: | W226N2974 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 1.9225-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Downward sloping and level |
| Utilities: | All Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0914992001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | April 30, 2020 |
| Sale Price: | $210,000 |
| Sale Price/SF: | $2.51 |
| Sale Price/Acre: | $109,233 |
| Grantor: | NJT Development of Pewaukee, LLC |
| Grantee: | Duplainville Land Company, LLC |
| Document No.: | 4465218 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records |
| Verified To: | Jason Williams |
| Legal Description: | Lot One (1) of CERTIFIED SURVEY MAP NO. 11828, being part of the Northeast One-quarter (1/4) of the Northwest Onequarter (1/4) of Section Thirteen (13), Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on March 25, 2019 in Book 119, Pages 161 through 163 inclusive, as Document No. 4388415, as corrected by an Affidavit of Correction recorded on April 19, 2019 as Document No. 4392328. |


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**Comments:**

The parcel is located along the east side of Duplainville Road, just south of Green Road. The property abuts the CP Rail system. The property has average access and visibility with general level topography, slightly below street grade, with downward sloping topography toward the rail line. The property is zoned M-2 and LC and allows for manufacturing and related office uses. Both water and sewer are available to the site.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | W227 N4755 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.2361-acres |
| Zoning: | M-2 Limited Industrial District and LC Lowland Conservancy |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0866997004 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | October 31, 2018 |
| Sale Price: | $998,058 |
| Sale Price/SF: | $2.24 |
| Sale Price/Acre: | $97,504 |
| Grantor: | MH Land, LLC |
| Grantee: | KD Glass, LLC |
| Document No.: | 4369569 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, MLS, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description: PARCELS 1-3 OF CERTIFIED SURVEY MAP NO. 8264,RECORDED ON MAY 1, 1997, IN VOLUME 72 OFCERTIFIED SURVEY MAPS ON PAGES 120 TO 123,INCLUSIVE AS DOCUMENT NO. 2209268, BEING ADIVISION OF LANDS IN THE NORTHWEST ¼ OF THENORTHWEST ¼ OF SECTION 1, TOWN 7 NORTH, RANGE19 EAST, CITY OF PEWAUKEE, COUNTY OF WAUKESHA,STATE OF WISCONSIN.

**Comments:**
The parcel is located along the west side of Duplainville Road, just north of Lindsay. The property is locatged across the road from the CP Rail system. The property has average access and visibility with generally level topography. The property is zoned M-2 and LC and allows for manufacturing and related office uses. The site is serviced with water and sewer. The property was developed with an industrial use property post-sale.

**Parcel Map**





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## LAND SALE NO. 4




**Property Identification**

| | |
|---|---|
| Location: | Green Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 10.8086-acres |
| Zoning: | M-6 Mixed Industrial Use District |
| Topography: | Generally Level |
| Utilities: | Water, no sewer |
| Intended Use: | Industrial |
| Tax Key Number: | PWC 0914987 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 21, 2017 |
| Sale Price: | $1,307,600 |
| Sale Price/SF: | $2.78 |
| Sale Price/Acre: | $120,978 |
| Grantor: | Schmidt Family Investments Limited Partnership |
| Grantee: | IP Green Road, LLC |
| Document No.: | 4264141 |
| Conveyance: | Warranty Deed |
| Financing: | All Cash to the Seller |
| Verified By: | IPAS, Public Records, Interstate Partners, Rhett Tuff – City of Pewaukee Assessor |
| Verified To: | Jason Williams |


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Legal Description:

All that part of the North One-half (1/2) of the Northwest One-quarter (1/4) of Section Thirteen (13), in Township Seven (7)North, Range Nineteen (19) East, in the City of Pewaukee,County of Waukesha, State of Wisconsin, described asfollows, to-wit: Beginning at a point in the North line of saidSection, 687 feet East of the Northwest corner, thence Easton the Section line 1456 feet to the intersection of the highways; thence South 27° West along the center of thehighway 652 feet to the North line of the Chicago, Milwaukee& St. P. Ry.; thence West along the North line of said Railway1213 feet; thence North 5° East 606 feet to the place ofbeginning. Excepting therefrom those lands conveyed in aWarranty Deed recorded on November 19, 1900 in Volume 71of Deeds, at Page 230, as Document No. 43543; and in aWarranty Deed recorded on May 27, 1889 in Volume 74 ofDeeds, at Page 111, as Document No. 14005; and in aWarranty Deed recorded on November 19, 1892 in Volume 89of Deeds, at Page 34, as Document No. 30659; and in aWarranty Deed recorded on January 20, 1945 in Volume 365of Deeds, at Page 446, as Document No. 270818; and in aConveyance of Lands recorded on August 19, 1952 in Volume582, at Page 11, as Document No. 369391; and in a WarrantyDeed recorded on June 20, 1958 in Volume 775 of Deeds, atPage 337, as Document No. 479976.

**Comments:**

The parcel is located along the south side of Green Road just east of Duplainville Road. The property abuts the CP Rail system. The property has average access and visibility with generally level to slightly rolling topography. The property is zoned M-6 and allows for industrial uses. The site is serviced with water not sewer. The property is currently being marketed by Interstate Partners for a speculative 140,000 square foot industrial use building.


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**Parcel Map**





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**ADDENDUM D**

**ZONING MAP & CODE**


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**ZONING MAP**




**CITY OF PEWAUKEE MUNICIPAL CODE 66 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0423 M-1, GENERAL WHOLESALE BUSINESS/WAREHOUSE DISTRICT**
The M-1, General Wholesale Business/Warehouse District is intended to provide for the orderly and attractive grouping at appropriate locations of wholesale business or warehousing activities including storage and distribution of both wholesale and retail goods, but including no retail sales on the premises except as permitted by the Plan Commission.
a. Permitted Principal Uses
(1) Establishments for the wholesale sale of goods and materials (other than chemical, flammable liquid, gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from public streets, roads, or highways and adjacent uses and where the individual goods or materials are not reduced in size or basically changed in character.
(2) Buildings or yards for the storage of wholesale goods and materials (other than chemicals, flammable liquids, and gaseous, vaporous, or explosive substances) where such goods or materials are temporarily stored inside a permanent building or within an open area attractively and effectively visually screened from passersby, public streets, roads, or highways and adjacent uses, and where the individual goods or materials are not reduced in size or basically changed in character.
(3) Commercial Kennels. (Cr. 13-09) b. Permitted Accessory Uses
(1) Offices, or garages for storage of licensed vehicles used in conjunction with the operation of the business or for occupants of the premises.
(2) Screened off-street parking and loading access, including parking ramps and garages.
(3) (See Section 17.0700).
(4) The storage of not more than 10,000 gallons of fuel and petroleum products for use incidental to the principal use and upon specific approval of the Plan Commission after recommendation by the Fire Chief.
c. Conditional Uses
(1) Establishments for the temporary storage of vehicles used in the transport of goods and materials.
(2) Establishments for the transfer of wholesale goods and materials from one transport vehicle to another.


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(3) Buildings, structures, or tanks used for the storage of chemicals, flammable liquids, and gaseous or vaporous substances, other than permitted accessory uses, upon specific approval of the Plan Commission after recommendation by the Fire Chief.
(4) Yards and structures used for the temporary storage or holding of animals not for slaughter.
(5) Warehouses used, or designed to be used, for the storage of domestic household goods, "dead" files and other limited time and use storage.
(6) Residential quarters for the owner or hired caretaker provided that such quarters are in the principal building, not more than 750 square feet in area, no more than two (2) bedrooms, and not for rent, lease or separate sale.
(7) Yards for the storage of bulk construction products when screened from view.
d. Lot Area and Width
(1) Lots shall have a minimum area of two (2) acres.
(2) Lots shall not be less than 200 feet in width at the building setback line.
e. Building Height and Size (See Section 17.0210)
(1) No principal building, no part of a principal building, and no goods or materials stored shall exceed 35 feet in height.
(2) No accessory building shall exceed 18 feet in height.
f. Setback and Yards
(I) There shall be a minimum building (or street) setback of 30 feet from the right-of-way of all streets, roads, or highways.
(2) There shall be a side yard on each side of all buildings not less than 25 feet in width and buildings shall be no closer than 50 feet from another building.
(3) There shall be a rear yard of not less than 25 feet.
(4) All structures and storage yards shall be set back a minimum 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see subsection 17.0435)
g. Parking and Loading Space
(1) There shall be adequate paved off-street parking space provided for the intended use of the property and no on-street parking or on-street vehicle maneuvering will be allowed in the vicinity of the property. (Also see subsection 17.0210 and section 17.0600).
(2) There shall be adequate paved off-street loading area provided to accommodate all necessary loading and unloading activities on the premises, and no loading dock or area shall be located closer than 100 feet from the right-of-way of a public access street.
(3) All parking and loading areas shall be adequately screened as determined by the Plan Commission.
(4) There shall be no driveway, parking or loading area within 25 feet of a street right-of-way or 15 feet of an adjacent property.
h. Minimum Utility Service
Electricity, and where available, public sewer and water supply.
i. Special Regulations
To encourage wholesale business use environment that is compatible with the residential character of the City, a Building and/or Zoning permits for permitted uses in the M-1 District shall not be issued without prior review by and approval of the City Plan Commission. Said review and approval shall be concerned with existing and planned adjacent uses, need for public or private water supply and sanitary sewage disposal facilities, general site layout, building and operation plans, ingress, egress, drainage, lighting, signage, parking, loading and unloading, screening and landscape plans.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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ALL OF CERTIFIED SURVEY MAP NO. 3152, RECORDED NOVEMBER 28, 1977, IN VOLUME 23 OF CERTIFIED SURVEY MAPS, ON PAGES 269, 270 AND 271, AS DOCUMENT NO. 1026223, BEING A PART OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 AND SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 1, TOWN 7 NORTH, RANGE 19 EAST, CITY OF PEWAUKEE, COUNTY OF WAUKESHA, STATE OF WISCONSIN.

TAX KEY NO.: PWC 0867998001

ADDRESS: W225N4140 DUPLAINVILLE ROAD.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 5**
**Owner: Edward A. & Penny A. Wistl**
**Interest: PLE**

Parcel No. 5 of Transportation Project Plat 21-01-4.03 recorded as Document #4651916, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel No. 5 consist of:

**Permanent Limited Easement**

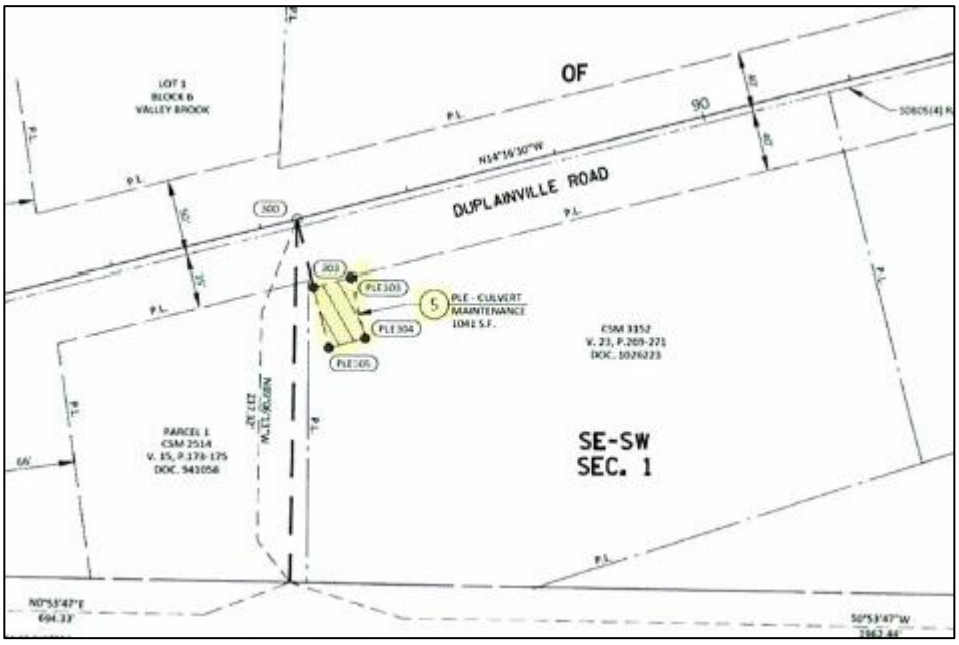

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**ADDENDUM F**

**ACQUISITION PLAT**


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**ACQUISITION PLAT**





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**ADDENDUM G**

**FLOOD PLAIN MAP**


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**ADDENDUM H**

**QUALIFICATIONS**


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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**APPRAISAL REPORT**

OF

**Acquisition of Land and Improvements for the**
**Duplainville Road Reconstruction and Trail Extension**
**Project I.D. 21-01**
Located at W225N4226 Duplainville Road
City of Pewaukee, Waukesha County, Wisconsin
Parcel No. 6

**DATE OF VALUE**

February 13, 2022

**PREPARED FOR**

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

**PREPARED BY**

**SINGLE SOURCE, INC.**

March 2, 2022

Ms. Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Project I.D. 21-01
City of Pewaukee
Duplainville Road Reconstruction and Trail Extension
Parcel No. 6

Dear Ms. Wagner:

At your request and authorization, the appraiser has evaluated the impact of the acquisition of land and improvement interest proposed to be acquired by the City of Pewaukee, affecting the referenced real property. The purpose is to estimate the compensation due the owner under the provisions of 32.09 Wisconsin Statutes. As provided in Section 32.09, compensation shall be based on the fair market value of the property.

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4226 Duplainville Road. According Public Records, the site contains approximately 2.4209-acres or 105,454-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

Data, information, and calculations leading to the value conclusion are incorporated in the report following this letter. The report, in its entirety, including all assumptions and limiting conditions, is an integral part of and inseparable from this letter.

Based on our investigation as outlined, it is our opinion that the total compensation due the owner of the subject property located at W225N4226 Duplainville Road, City of Pewaukee, Waukesha County, Wisconsin, as of February 13, 2022 is:

**EIGHT HUNDRED DOLLARS**

**($800)**

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $330,000 |
| Market Value Following Acquisition: | $330,000 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $800 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$800** |
| **Total:** | **$800** |

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, our interpretation of the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP) and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if Single Source, Inc. can be of further service, please do not hesitate to contact us.

Respectfully submitted,

**SINGLE SOURCE, INC.**
by:

Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23

Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23

## CERTIFICATION OF THE APPRAISER

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, unbiased professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event, such as the approval of a loan.
5. My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation and the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Steve Boll and Jason Williams have completed the requirements of the continuing education program for Wisconsin State Certification.
8. No one provided significant real property appraisal assistance to the persons signing this certification.
9. Steve Boll and Jason Williams are currently certified in the state where the subject is located.
10. Steve Boll has extensive experience in the appraisal/review of similar property types.
11. Jason Williams lacks the experience in the appraisal of similar property types, however, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.
12. Any decrease or increase in the market value of the real property prior to the date of the valuation caused by the public improvements for which this property is to be acquired, or by the likelihood that this property would be acquired for such improvement, other than that due to physical deterioration within reasonable control of the owner, was disregarded in determining the compensation for this property.
13. We have not revealed the findings and results of this appraisal to anyone other than the client and will not do so until authorized by the said property owner, or until we are required to do so by due process of law, or until we are released from this obligation by having publicly testified to such findings.
14. We have not given consideration to nor included in this appraisal any relocation assistance benefits.
15. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding the agreement to perform this assignment.
16. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.


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17. We made a personal inspection of the property that is the subject of this report. Jason Williams spoke with Marcia Mueller, owner, via telephone and invited her to accompany the appraisers on the inspection. Mrs. Mueller declined but told Mr. Williams they can inspect unaccompanied. However, Mrs. Mueller did add that if she were home while we were conducting the inspection she would come outside and accompany us. On Saturday, January 29, 2022 Steve Boll and Jason Williams inspected the subject property unaccompanied. On Sunday, February 13, 2022 Jason Williams made a final inspection of the subject property unaccompanied. Mrs. Mueller did not accompany the appraisers during either of the site inspections. Jason Williams made a field inspection of the sales relied upon in making this appraisal.
18. It is our opinion that as of February 13, 2022, the total compensation due the owner of the subject property herein described is $800.



Steve Boll
Principal
Wisconsin General Certified Appraiser No. 872-010
Expiration Date: 12/14/23



Jason M. Williams
Appraiser
Wisconsin General Certified Appraiser No. 2160-10
Expiration Date: 12/14/23


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**Summary of Salient Facts**

| | |
|---|---|
| Property Owner: | Thomas and Marcia Mueller |
| Property Address: | W225N4226 Duplainville Rd., City of Pewaukee, Waukesha County, Wisconsin 53072 |
| Owner Address: | W225N4226 Duplainville Rd., City of Pewaukee, Waukesha, Wisconsin 53072 |
| Phone: | 262-691-9656 |
| Total Land Area: | 2.4209-acres or 105,454-square feet |
| Building Improvements: | The subject is improved with a single-family residence |
| Assessor's Parcel Number: | PWC 0867998 |
| Current Zoning: | Rs-2, Single-Family Residential District |
| Five Year Sales History: | According to public records, the subject property has not sold in the past five years. To the best of our knowledge, the subject property is not currently listed for sale. |
| Highest and Best Use: | |
| As Though Vacant: | Residential Development |
| As Improved: | Single-Family Residence |
| Property Rights Appraised: | Fee Simple |
| Date of Value: | February 13, 2022 |
| Date of Inspections: | February 13, 2022 |


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**AREA AND INTEREST TO BE ACQUIRED**

| | |
|---|---|
| Land (in fee): | None |
| Acquired Site Improvements: | None |
| Permanent Limited Easement: | 789 square feet or 0.01811 acres |

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $330,000 |
| Market Value Following Acquisition: | $330,000 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $800 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$800** |
| **Total:** | **$800** |


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D Zoning Map & Code
E Legal Descriptions
F Acquisition Plat
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# INTRODUCTION

## PROPERTY IDENTIFICATION

The subject parcel is located along the east side of Duplainville Road, north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4226 Duplainville Road. According to Public Records, the site contains approximately 2.4209-acres or 105,454-square feet of land. The subject has generally level topography with a rectangular shape. The site has average visibility and access. The parcel is improved with a single-family residence.

## DESCRIPTION OF THE PROJECT

Duplainville Road is a suburban two-lane roadway in the City of Pewaukee. This project proposes to reconstruct Duplainville Road from the Canadian Railroad Tracks (south of Green Road) to Weyer Road. This project will be a full roadway reconstruction, adding a trail along the entire project, spot curb and gutter, new storm sewer, signing and pavement markings. Construction is scheduled to begin in the spring of 2022. During construction, traffic along Duplainville Road will be detoured to CTH F.

## PROPERTY OWNERSHIP AND SALES HISTORY

The current owners of the subject property are Thomas and Marcia Mueller. According to public records the subject property has not sold in the past five years nor is it currently listed for sale.

## DATES OF INSPECTION, VALUATION, AND REPORT

| | |
|---|---|
| Dates of Inspection: | February 13, 2022 |
| Date of Value: | February 13, 2022 |
| Date of Report: | March 2, 2022 |

## INTENDED USE, USER, AND CLIENT OF REPORT

This report is being prepared for City of Pewaukee, the intended users, to estimate market value to be used in the determination of just compensation for the acquisition of real property interests for a transportation project. The purpose of this appraisal is to estimate compensation due the owner for the acquisition of property and property rights, as indicated above. This shall be done in accordance with the provisions of Sections 32.09 Wisconsin Statutes, which states that compensation shall be based on market value. This report may be relied upon by The City of Pewaukee (client) and its successors and assigns. The report may not be relied upon by any rating agencies involved in rating securities secured by or representing an interest. This report may not be used in connection with materials offering for sale or an interest in the property and in presentations to any rating agency. With respect to the foregoing, the report speaks only as of the date of this report unless specifically updated through a supplemental report.


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## JURISDICTIONAL EXCEPTION

This appraisal is done under the Jurisdictional Exception Rule of USPAP. The appraiser must comply with the overriding authority of State and Federal laws, rules and regulations including the Uniform Relocation and Real Property Acquisitions Policies Act of 1970 as amended, 49 Code of Federal Regulations (CFR) Part 24.103 and Wisconsin Statute 32.09. Only those valuation approaches that are applicable are included in this report. The elimination of approaches that are not applicable does not result in a departure from the Uniform Standards of Professional Appraisal Practice. The Jurisdictional Exception Rule allows law or public policy to supersede USPAP rules.

## SCOPE OF WORK

The Appraiser has;

a). Inspected the subject property to note the characteristics of the property that are relevant to its valuation;
b). Investigated available market data for use in the sales comparison approach to value. The appraiser's investigations include research of public records through the use of commercial sources of data such as printed comparable data services and computerized databases. Search parameters such as dates of sales, leases, locations, sizes, types of properties and distances from the subject started with relatively narrow constraints and expanded until the appraiser has retrieved data sufficient (in the appraiser's opinion) to estimate market value. Researched sales were viewed and the appraiser considered any appropriate listings or properties found through observation during appraiser's data collection process. The appraiser reported only the data deemed to be pertinent to the valuation problem.
c). Investigated and analyzed any pertinent easements or restrictions, on the fee simple ownership of the subject property. The client has supplied the appraiser with a title report Commitment No CO-11179.
d). Analyzed the data found and reach conclusions regarding the market value, as defined in the report, of the subject property as of the date of value using appropriate valuation approach(es) identified above;
e). Prepared the appraisal in compliance with the Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation, the Code of Professional Ethics and Certification Standard of the Appraisal Institute and the Federal Highway Administration Code of Federal Regulations (CFR), Part 24.103, Wisconsin Statute 32.09 and the Real Estate Program of the Wisconsin Department of Transportation;
f). Prepared an Appraisal Report, as defined in USPAP, which will include photographs of the subject property, descriptions of the subject neighborhood, the site, any improvements on the site, a description of the zoning, highest and best use analysis, as summary of the most important sales used in the appraiser's valuation, a reconciliation and conclusion, a map illustrating the sales in relationship to the subject property and other data deemed by the appraiser to be relevant to the assignment. Pertinent data and analyses not included in the report may be retained in appraiser's files.

## APPRAISAL DEVELOPMENT AND REPORTING PROCESS

The following steps were completed by the appraiser for this assignment:

1. Analyzed regional, city, town, neighborhood, site, and improvement data.
2. Inspected the subject and the neighborhood.
3. Reviewed data regarding taxes, zoning, utilities, easements, and city services.


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4. Considered comparable improved sales, comparable improved building rental information, and comparable site sales. Confirmed data with principals, managers, or real estate agents representing principals, unless otherwise noted.
5. Analyzed the data to arrive at conclusions via each approach to value used in this report.
6. Reconciled the results of each approach to value employed into a probable range of market data and finally an estimate of value for the subject, as defined herein.
7. Estimated a reasonable exposure time associated with the value estimate.

The subject site and improvement descriptions are based on a personal inspection of the property and a review of the relevant plat maps and site plans.

**TYPE OF APPRAISAL**

This is an Appraisal Report, which is intended to comply with the reporting requirements set forth under the Uniform Standards of Professional Appraisal Practice. In an appraisal, the appraiser uses all known applicable approaches to value. The value conclusion reflects all known information about the subject property, market conditions, and available data.

The Appraisal Report incorporates a practical explanation of the data, reasoning and analysis that were used to develop the opinions of value. It also includes thorough descriptions of the subject property and the market for the subject property type.

**EXTRAORDINARY ASSUMPTION**

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines an Extraordinary Assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis.

An extraordinary assumption may be used in an assignment only if:

a). It is required to properly develop credible opinions and conclusions;

b). The appraiser has a reasonable basis for the extraordinary assumption;

c). Use of the extraordinary assumption results in a credible analysis, and;

d). The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

As the construction project will not affect the highest and best use or utility of the building improvements, there are no damages to the building improvements. It is an extraordinary assumption of the appraisal that the improvements equalized assessed value is equivalent to the market value of the improvements. The appraiser reserves the right to amend the appraisal to value the improvements, if necessary. The use of this extraordinary assumption may have altered the appraisal results.


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## HYPOTHETICAL CONDITION

The Dictionary of Real Estate Appraisal (Appraisal Institute, 7th edition) defines a Hypothetical Condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

A Hypothetical Condition may be used in an assignment only if:

a). Use of the Hypothetical Condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
b). Use of the Hypothetical Condition results in a credible analysis; and
c). The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

In the before acquisition valuation, 49 CFR Part 24 and Section 32.09 Wisconsin Statutes requires the appraiser to disregard any decrease or increase in the market value of the property that has been caused directly by the project. 49 CFR 24.103(b) states, "The appraiser shall disregard any decrease or increase in the fair market value of the real property caused by the project for which the property is to be acquired, or by the likelihood that the property would be acquired for the project, other than that due to physical deterioration within the reasonable control of the owner. This appraisal uses the hypothetical condition (in the before acquisition value) that the proposed public improvements do not exist, and have not been proposed. The proposed public improvement project is a condition external to the subject property, and as the before value does not recognize the existence of this proposed project, contrary to known fact, this hypothetical condition is required. The use of this hypothetical condition may have altered the appraisal results.

The after condition of the subject as though the project has been completed is a hypothetical condition.

## MARKET VALUE

Market value is defined as follows:

> The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and


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5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. [1]

**TERMS AND DEFINITIONS**

Please refer to the Addenda for a Glossary of the Terms and Definitions that are, and may be used in this appraisal. Special definitions for this specific report were obtained from pages 131 and 209 of the *Principles of Right of Way* published by The International Right of Way Association, and are as follows:

**Larger Parcel:** The larger parcel is the total parcel of which the right-of-way or partial taking is a part. Valuation of the larger parcel determines the unit value of the land and the highest and best use estimate for the property before the taking. It also defines the area regarded as "damaged" or "benefited" by the taking or project. The larger parcel is generally characterized as a parcel held in one ownership (vesting), consisting of contiguous land, and used (or best used) for a single purpose.

According to Public Records, the site contains approximately 2.4209-acres or 105,454-square feet. The subject is improved with a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way.

Following the acquisition the subject site will be 2.4209-acres or 105,454-square feet. The subject is improved with a single-family residence.

**Severance Damage:** Severance damage is the loss in value to the portion of the larger parcel remaining after the taking and construction of the public improvement.

**Special Benefits:** Special benefits are improvements or value enhancements unique to that portion of the larger parcel remaining after the taking and resulting from the project.

**Easement:** A non-possessing interest held by one person in land of another whereby the first person is accorded partial use of such land for a specific purpose. An easement restricts but does not abridge the rights of the fee owner to the use and enjoyment of his land.

One Permanent Limited Easement totaling 789-square feet or 0.01811-acres is located on the west side of the property along Duplainville Road.

**PROPERTY RIGHTS APPRAISED**

Fee Simple Estate.

**SPECIAL APPRAISAL INSTRUCTIONS**

According to the Project Engineer, Keith Behrend the construction start date and completion date for this project should be June 1, 2022 through December 1, 2022 (6 months). However, the project clean-up may run until November 2023.

[1] The definition of market value is taken from: The Interagency Appraisal and Evaluation Guidelines effective December 10, 2010.


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**OWNERS CONCERNS**

Mrs. Mueller indicated that there were two pine trees located at the driveway entrance to the property from Duplainville Road and did not want the trees disturbed. She also warned that there was a dog leash in this area buried beneath the snow. According to measurements taken from the Waukesha County GIS the driveway entrance and pine trees are approximately 280-feet north of the permanent limited easement area and therefore outside of the project area as shown on Transportation Project Plat No. 21-01-4.03.

**COMPETENCY OF THE APPRAISER**

Steve Boll is uniquely qualified for this appraisal assignment having appraised many similar properties over the past 30 years. No additional steps were required to meet the Competency Rule under USPAP.

Jason Williams lacks the experience for this appraisal assignment. However, per the Competency Rule of the Uniform Standards of Professional Appraisal Practice he took necessary and appropriate steps to complete this assignment competently. Jason Williams attended and completed the Appraisal Institute course Eminent Domain and Condemnation and worked closely under the direct supervision of Steve Boll.

**EXPOSURE TIME**

The concept of market value assumes the hypothetical sale of a property given reasonable exposure on the market. Further, the exposure time is presumed to proceed the effective date of the appraisal. Exposure time is defined in Uniform Standards of Professional Appraisal Practice ("USPAP") Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Market Value Estimates" as:

The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

Exposure time is different for various types of real estate and under various market conditions. It is noted that the overall concept of reasonable exposure encompasses not only adequate, sufficient, and reasonable time but also adequate, sufficient, and reasonable effort. The best estimate of exposure time is a function of price, time, use, and current market conditions for the cost and availability of funds. This is seen as an integral part of the appraisal process and the estimate of market value.

The following table presents the information derived from these sources based on a residential use property:

**EXPOSURE TIME INFORMATION**

| | Exposure Time (Months) | |
|---|---|---|
| Data Source | Range | Average |
| Real Estate Investor Survey | 2-12 | 9.00 |
| Local Market Professionals | 3-12 | 9.00 |
| Compiled By: Single Source, Inc. | | |

In estimating the length of time the property would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of this appraisal, we considered information gathered on comparable sales, historical and current market conditions. According to real estate investment


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publications, typical buyers and sellers of commercial and residential properties are private investors. After analyzing the above factors, we believe the reasonable exposure time anticipated to sell a property similar to the subject property, at the estimated market value, would have been three to twelve months.

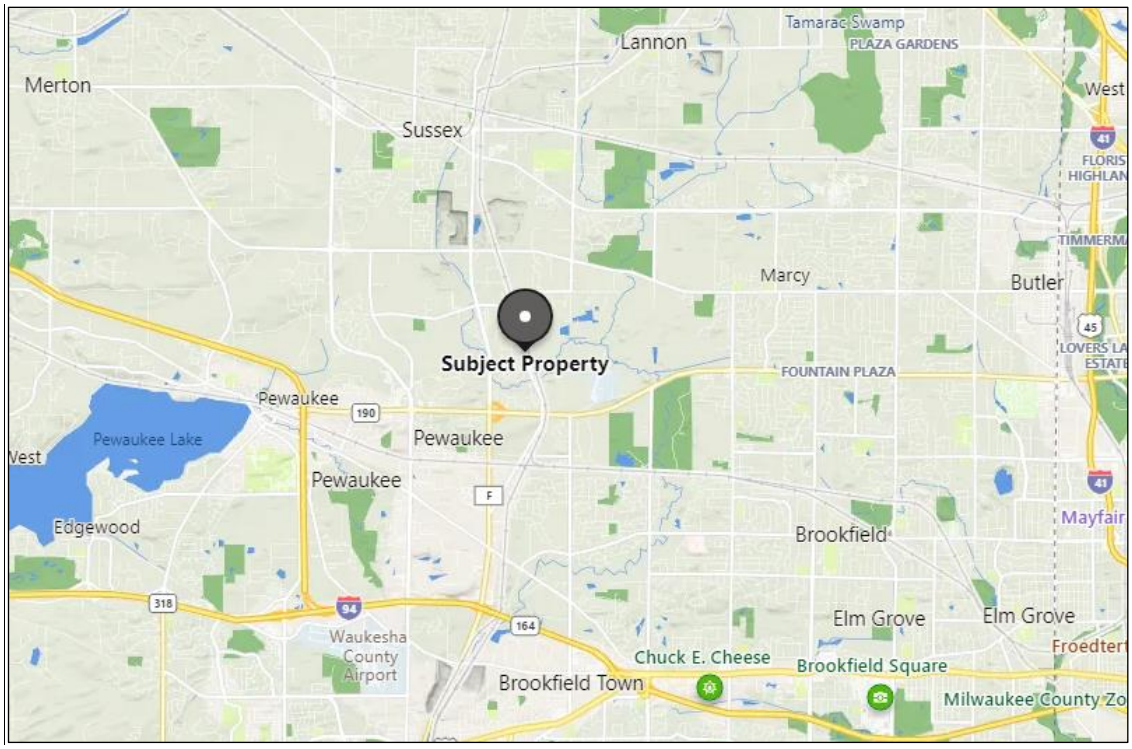

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## MARKET AREA

### Location

The neighborhood is located in the City of Pewaukee. The neighborhood is located in northeastern Waukesha County.

### NEIGHBORHOOD MAP




### Boundaries

The neighborhood boundaries are considered to be:

| | |
|---|---|
| North: | Weyer Road |
| South: | Capitol Drive |
| East: | Springdale Road |
| West: | Redford Boulevard |

### Land Use

The subject neighborhood is located in the Spring Creek Neighborhood as identified in the City of Pewaukee 2050 Land Use/Transportation Plan. The neighborhood is bounded on the north by the City's mutual boundary with the Town of Lisbon (also Weyer Road); on the east by the City's mutual boundary with both the City and Town of Brookfield; on the south by Capitol Drive (STH 190); and, on the west by Redford Boulevard (CTH F). The neighborhood has an area of 1.65 square miles. City arterial highway Duplainville Road and adjacent Canadian National/Wisconsin Central, LTD Railroad (CN) tracks traverse the approximate middle of the neighborhood from north to south, dividing the neighborhood approximately in half.


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Land uses within immediate proximity of the subject consist of a harmonious mixture of residential, institutional/government, and industrial development. The immediate area surrounding the subject is an area of residential and industrial development. According to the 2050 Land Use Plan population and residential dwelling units have increased considerably since 2015, with a decline in commercial and industrial uses.

**Access**

Primary access to the subject neighborhood is provided by Duplainville Road. Capitol Drive runs east-west immediately adjacent to the south of the property, however, there is no direct access to Capitol Drive from Duplainville Road. Interstate 94 is primarily an eight-lane, variable width right-of-way and located within three miles around the subject property with access from ramps County Highway F via Duplainville Road.

**Conclusions and Relevance to the Subject**

The subject neighborhood has shown above-average growth over the past 60 years. The neighborhood currently has an average income demographic profile relative to Waukesha County and above the greater Milwaukee area. The outlook for the neighborhood is for relatively stable performance with modest improvement over the next few years. Overall, the neighborhood is expanding and in above-average condition for residential uses. As a result, the demand for new and existing developments is expected to be good. Generally, the neighborhood is expected to maintain a relatively stable pattern in the foreseeable future.


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## SITE ANALYSIS

### Location

The subject parcel is located along the east side of Duplainville Road, north of West Capitol Drive and south of Weyer Road in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4226 Duplainville Road.

### Access

Access is available from one access point via the east side of Duplainville Road.

### Visibility

Overall the subject has average visibility along Duplainville Road.

### Land Area

According to Public Records, the site contains approximately 2.4209-acres or 105,454-square feet.

### Shape and Frontage

The subject is rectangular in shape with approximately 564 linear feet of frontage along the east side of Duplainville Road.

### Topography and Drainage

The subject has generally level topography. The subject property has a rectangular shape and is generally level and at road grade along Duplainville Road. Drainage follows the natural flow of the site.

### Utilities

Municipal sewer and water are available to the site. Sewer is connected to the site, not water.

### Soils

No recent soil analysis was submitted for review. We assume soil conditions are good.

### Easements

No unusual or adverse easements appear to limit the utility of the site for development.

### Covenants, Conditions, and Restrictions

It is specifically assumed that any covenants would have no adverse impact on marketability or value.


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**Plat Map**




**Flood Zone**

According to maps published by the Federal Emergency Management Agency (FEMA), the subject lies within Zone X as indicated on FEMA Community Map Panel 55133CO202G dated November 5, 2014. According to the maps the single-family residence is located in Zone X.

FEMA Zone X: Areas determined to be outside the 500 year flood plain.

**Environmental Issues**

A search was made of the online Wisconsin DNR Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web or BOTW). This search indicated no on-site environmental issues. For appraisal purposes, the appraiser discloses that no knowledge of the existence of the contamination on the subject property. The appraiser is not qualified to detect the extent of hazardous waste or toxic materials nor estimate the cost to cure. We will estimate the market value of the subject as if clean, but reserve the right to modify the opinion of market value if found otherwise.


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### Site Improvements

The site is improved with a single-family residence. The improvements will not be impacted by the road project.

**Aerial Map**




### Larger Parcel

According to Public Records, the site contains approximately 2.4209-acres or 105,454-square feet. The subject is improved with a single-family residence. Per our research, the subject owners do not own any contiguous property. In my opinion, there is no potential for the subject property to be split or subdivided into multiple parcels or uses.

### Conclusion

The property is comprised of a single larger parcel containing 2.4209-acres or 105,454-square feet. The site topography is generally level and at road grade. The subject is rectangular in shape with frontage along the east side of Duplainville Road. Both municipal water and sewer are available to the site. Sewer is connected to the site, not water.


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## ZONING

The subject's zoning requirements are detailed below.

| Zoning Summary | |
|---|---|
| Current Zoning: | Rs-2, Single-Family Residential District |
| Permitted Uses: | One single-family residence, foster homes, CBRFs, family day care, professional home office, hobby kennels |
| **Category** | **Zoning Requirement** |
| Front Setback: | 45-feet from right-of-way |
| Rear Setback: | 35-feet |
| Side Setback: | 25-feet |
| Floodplain Setback: | 75-feet |
| Wetland Setback: | 25-feet |
| Height Limit: | 35-feet principle building; 18-feet accessory building |
| Minimum Lot Size: | 2.0 acres |
| Minimum Lot Width: | Not less than 220' at building |
| Driveway Limit: | 24-feet at right-of-way line and 28-feet at the roadway |
| Source: City of Pewaukee Zoning Code<br>Compiled By: Single Source, Inc. | |


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## TAX AND ASSESSMENT DATA

The subject's assessed value and taxes are summarized below.

| Ad Valorem Tax Information | | | | |
|---|---|---|---|---|
| Parcel | Land | Improvements | Total | Taxes |
| PWC 0867998 | $137,600 | $137,500 | $275,100 | $3,124.73 |
| Equalized Market Value @ 100% | $140,300 | $140,200 | $280,500 | |
| Assessment Ratio (2021) | 98.06% | | | |
| Tax rate (2021) per $1,000 of assessed value | $12.4625189 | | | |
| Source: Tax Bill<br>Compiled By: Single Source, Inc. | | | | |

**Conclusion**

The City of Pewaukee records indicate there are no delinquent property taxes. The appraiser assumes that all taxes are current. The total tax bill of $3,124.73 includes a First Dollar Credit of $66.80, Lottery Credit of $236.91. Review of public records indicate no special assessment for the subject property.


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## HIGHEST AND BEST USE

In appraisal practice, the concept of highest and best use represents the premise upon which value is based. The four criteria the highest and best use must meet, as of the date of opinion, are:

- legal permissibility;
- physical possibility;
- financial feasibility; and
- maximum profitability.

Highest and best use analysis involves assessing the subject as if vacant and as improved.

### HIGHEST AND BEST USE AS VACANT

#### Legal Permissibility

The subject is zoned Rs-2 Single-Family Residential District. The Rs-2 Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre. The subject property appears to comply with the current Rs-2 zoning standards.

#### Physical Possibility

The physical characteristics of the subject site were discussed in detail in the site analysis. The site has a generally rectangular shape and generally level topography. Overall, a wide range of legally permissible uses would be physically possible.

#### Financial Feasibility

The financial feasibility of a specific property is market driven, and is influenced by surrounding land uses. The subject site is located in a suburban area, near both residential and industrial development. Based on the subject's specific location and physical characteristics, it is our opinion that a residential use represents the most financially feasible use of the land as vacant.

#### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. Based on the subject's specific location and physical characteristics, it is our opinion that development of the site with a residential use, which is complimentary to the surrounding land uses, would represent the most likely financially feasible option.

#### Conclusion: Highest and Best Use As Though Vacant

The concluded highest and best use of the subject as though vacant is residential development.


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## HIGHEST AND BEST USE AS IMPROVED

### Legal Permissibility

The subject is a legal and conforming use as improved per the Rs-2 Single-Family Residential District zoning code.

### Physical Possibility

The layout and positioning of the improvements are functional for a single-family residence, and the improvement layout is reasonable based on market comparables. Although a variety of uses would be physically possible, the improvements are most functional as the current single-family residence.

### Financial Feasibility

Typically, for properties similar to the subject, the test of feasibility is based on a sales comparison approach analysis due to the ownership profile. There is a healthy and active residential market in the City of Pewaukee and Waukesha County. Single Source, Inc., therefore, concludes that the continued use of the improvements is a financially feasible use of the property as improved.

### Maximum Profitability

The maximally profitable use of the subject as improved should conform to neighborhood trends and be consistent with existing land uses. Although several uses may generate sufficient revenue to satisfy the required rate of return on investment and provide a return on the land, the single use that produces the highest price or value is typically the highest and best use. However, the recipient of the property's productivity greatly determines what actual use maximizes profitability.

### Conclusion: Highest and Best Use as Improved

Based on the foregoing discussions, the highest and best use of the property as improved is continued use as a single-family residence. There currently are no alternative uses of the improvements that would produce a higher net income and/or value over time than the current use. The current use is the highest and best use as improved. Furthermore, conversion of the improvements or demolition is not warranted or financially feasible at this time.

### Conclusion: Highest and Best Use – Before Acquisition

The concluded highest and best use of the subject before the acquisition is continued use as a single-family residence.

### Conclusion: Highest and Best Use – After Acquisition

The concluded highest and best use of the subject after the acquisition is continued use as a single-family residence.

**Remainder Land:** Remainder land is that portion of the larger parcel that is not acquired for the right of way. The subject property has a site size of 105,454-square feet or 2.4209-acres in the "before" condition. The subject is improved with a single-family residence, in the "before" and "after" condition. Following the acquisition the subject site will remain at 105,454-square feet or 2.4209-acres, as there is no fee acquisition.


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## APPRAISAL METHODOLOGY

In appraisal practice, an approach to value is included or omitted based on its applicability to the property type being valued and the quality and quantity of information available. Due to the nature of this appraisal assignment, we are valuing the land only.

### COST APPROACH

The Cost Approach is based upon the proposition the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements, which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there exist few sales or leases of comparable properties. As the subject improvements are not being valued, the cost approach is not applicable.

### SALES COMPARISON APPROACH

The Sales Comparison Approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject property. Valuation is typically accomplished using physical units of comparison such as price per square foot, price per unit, price per floor, etc., or economic units of comparison such as gross rent multiplier. Adjustments are applied to the physical units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value. Economic units of comparison are not adjusted, but rather analyzed as to relevant differences, with the final estimate derived based on the general comparisons.

### INCOME CAPITALIZATION APPROACH

The Income Capitalization Approach reflects the subject's income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value from a property over a period of time. As the subject improvements are not being valued, the income approach is not applicable.

### APPRAISAL METHODOLOGY APPLICABLE TO THE SUBJECT

In valuing the subject, the Sales Comparison Approach is an applicable valuation method for this type of appraisal. The Sales Comparison Approach is based on the principle of substitution. This principle is defined in the Appraisal Terminology and Handbook published by the Appraisal Institute as follows:

> *"The principle of substitution affirms that the maximum value of a property tends to be set by the cost of acquisition of an equally desirable and valuable substitute property, assuming no costly delay is encountered in making the substitution."*


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## DESCRIPTION OF THE ACQUISITION

The acquisition requirements from the property, all related to the Duplainville Road Reconstruction, according to Transportation Project Plat 21-01-4.03 recorded as Document No. 4651916 on February 15, 2022 are as shown below:

| | | |
|---|---|---|
| Subject Before Acquisition: | 105,454 SF | 2.4209-acres |
| Land (in fee): | None | |
| Existing Right-of-Way: | None | |
| Permanent Limited Easement: | 789 | 0.01811-acres |
| Improvements: | None | |
| Other Interests: | None | |
| Access: | None | |
| Remainder Parcel: | 105,454 SF | 2.4209-acres |

**Acquired Parcel**

None.

**Permanent Limited Easement**

One Permanent Limited Easement of 0.01811-acres or approximately 789-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.03 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

**Site Improvements**

There are no site improvements in the Permanent Limited Easement. There are deciduous brush, shrubs and trees located in the Permanent Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.


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## LAND VALUE

*Land Valuation*--In determining the value of land, the Sales Comparison Approach was used.

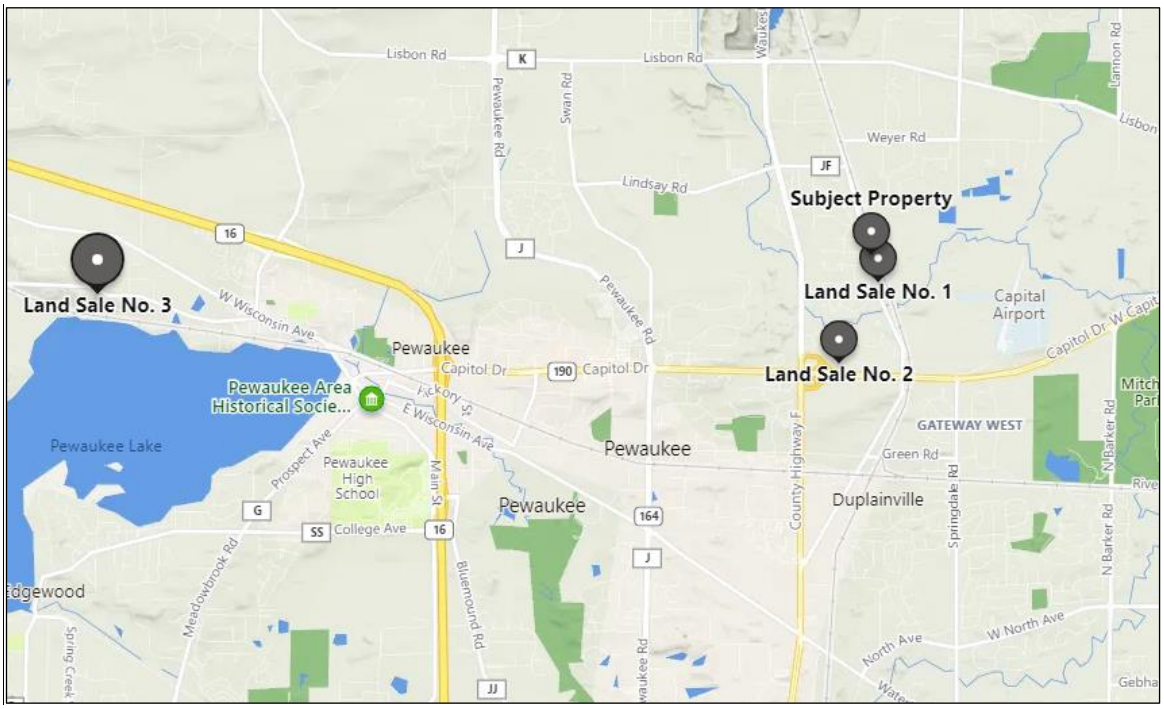
The Sales Comparison Approach relies on the principle of substitution. This principle states that when several similar commodities, goods, or services are available, the one with the lowest price attracts the greatest demand.

The Sales Comparison Approach is based on an analysis of actual market transactions of other similar properties that are compared with the subject. Comparable sales represent the actions of typical buyers and sellers in the marketplace and their actions determine the purchase price for the subject. When an adequate number of comparable sales exist, a range of value for the subject property can be determined.

The range of value determined, using units of comparison such as sales price per square foot, can be analyzed and adjusted for differences between the comparable sales and the subject. An analysis of adjusted units of comparison then forms the basis for the market value of the property. A land sales adjustment grid has been included for the value conclusion.

Details regarding the attributes of the comparable sales, considered most similar to the subject, are presented on the following page. A more detailed description of each transaction is included in Addendum C.

**Land Sale Map**




### ANALYSIS OF LAND SALES

The sales presented indicate a range in unit value from $1.46 to $5.44 per square foot of land area. The primary differences between the comparable sales and the subject include utilities, physical characteristics and size of


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the sale properties. None of the sales involved unusual or favorable financing terms so adjustments for cash equivalency are not required. All of the sales were found to be arm's length transactions. All the sales included the entire bundle of rights.

**LAND SALE SUMMARY**

| No. | Location | Date of Sale | Size (S.F.) | Size (Acres) | Zoning | Sale Price | Price/ S.F. | Price/ Acre |
|---|---|---|---|---|---|---|---|---|
| S | W225N4226 Duplainville Rd. Pewaukee, WI | -- | 105,454 | 2.4209 | Rs-2 | -- | -- | |
| 1 | Lot 1 Duplainville Road Pewaukee, WI | Feb-22 | 35,954 | 0.8254 | Rs-3 | $52,500 | $1.46 | $63,606 |
| 2 | Lot 14 Wyndemere Court Pewaukee, WI | Oct-21 | 23,893 | 0.5485 | Rs-5 | $130,000 | $5.44 | $237,010 |
| 3 | Lot 2 Glacier Road Pewaukee, WI | Sep-21 | 91,929 | 2.1104 | Rs-3, UC | $300,000 | $3.26 | $142,153 |

**Compiled by: Single Source, Inc.**

**Market Conditions**

Adjustments are necessary to account for inflationary forces in the market (time adjustment) and changes in supply/demand factors (market adjustments), which affect pricing levels. Inflation creates the need to apply an upward adjustment to pricing parameters to account for the long-term upward trend in price levels. Changing market conditions reflect either an upward or downward adjustment, depending on investors' perceived economic outlook and the supply/demand relationship in the market.

We have assumed a positive time adjustment factor for any sale one year past the date of valuation. All sales are less than one year from the date of value and do not require adjustment.

**Governmental/Environmental/and Off-Site Costs**

These costs are associated with impact fees charged for development, environmental cleanup or soil costs, and utility charges or off site costs. The subject site has municipal sewer and water available. Sale Nos. 1 and 3 have sewer service available but not water and require an upward adjustment. Sale No. 2 has both sewer and water available therefore no adjustment is required.

**Size**

The subject site has a size of approximately 2.4209-acres or 105,454-square feet of land area. The comparable sales range from 23,893-square feet to 91,929-square feet. Typically the smaller the site size, the higher the sale price on a unit basis. Sale Nos. 1, 2, and 3 are deemed smaller in size compared to the subject site and require varying degrees of downward adjustment.


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**Location**

The subject parcel is located along the east side of Duplainville, east of Redford Boulevard, and north of Capitol Drive in the City of Pewaukee, Waukesha County, Wisconsin. The property has an official street address of W225N4226 Duplainville Road. Sale Nos. 1 and 3 are deemed similar in location to the subject site and require no adjustment. Sale No. 2 is located in a pre-planned subdivision and is deemed to have superior location compared to the subject site and requires a downward adjustment.

**Access/Visibility**

The subject property has average access from all directions on adjacent roadways. Additionally, access is fair to State Highways. Sale Nos. 1 and 2 are deemed similar in access to the subject site and require no adjustment. Sale No. 3 has below average access because of narrow road width, minimal roadway shoulder and the access point to the site is located at the apex of a curve in the roadway. Therefore, in our opinion an upward adjustment is required.

**Physical Features**

The subject is rectangular in shape with generally level topography and at road grade. The eastern portion of the subject site abuts a Canadian Pacific rail system.

Sale No. 1 abuts the Canadian Pacific rail system and has similar physical features and does not require adjustment. Sale No. 2 does not abut a rail system which is considered a superior feature and requires a downward adjustment. Sale No. 3 does not abut a rail system, but has a view of Pewaukee Lake, therefore in our opinion a net negative adjustment is required.

**Zoning and Use**

The subject property is zoned Rs-2, Single-Family Residential District which allows residential uses. Sale Nos. 1 and 2 do not have additional zoning but Sale No. 3 has Upland Conservancy but in our opinion does not require adjustment. All sales have similar residential zoning and do not require adjustment.


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## LAND SALE ADJUSTMENT GRID

| DETAILS | SUBJECT | | SALE No. 1 | | SALE No. 2 | | SALE No. 3 |
|---|---|---|---|---|---|---|---|
| Sale Price | | -- | $52,500 | | $130,000 | | $300,000 |
| Date of Sale | | -- | Feb-22 | | Oct-21 | | Sep-21 |
| Net Site Size (SF) | | 105,454 | 35,954 | | 23,893 | | 91,929 |
| Price/SF | | -- | $ 1.46 | | $ 5.44 | | $ 3.26 |
| ADJUSTMENT PROCESS | | | $/SF | | $/SF | | $/SF |
| Unadjusted Sale Price | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Terms of Sale | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Cash Equivalent Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| Time/Market Conditions | | | 0.00% | | 0.00% | | 0.00% |
| | | | $ - | | $ - | | $ - |
| Current CE Price/SF | | | $ 1.46 | | $ 5.44 | | $ 3.26 |
| DIRECT ADJUSTMENTS | | | | | | | |
| Government Costs | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Soil/Environmental | | | 0.0% | | 0.0% | | 0.0% |
| | | | $ - | | $ - | | $ - |
| Utilities/Other Off-Site Costs | | | 10.0% | | 0.0% | | 10.0% |
| | | | $ 0.15 | | $ - | | $ 0.33 |
| Total Direct Adjustments | | | $ 0.15 | | $ - | | $ 0.33 |
| Adjusted CE Sale Price/SF | | | $ 1.61 | | $ 5.44 | | $ 3.59 |
| PERCENTAGE ADJUSTMENTS | | | | | | | |
| Size (SF) | 105,454 | | 35,954 | | 23,893 | | 91,929 |
| | | | Smaller | | Smaller | | Smaller |
| | | | -20% | | -20% | | -5% |
| | | | $ (0.32) | | $ (1.09) | | $ (0.18) |
| Market Area/Location | Pewaukee | | Similar | | Superior | | Similar |
| | | | 0% | | -20% | | 0% |
| | | | $ - | | $ (1.09) | | $ - |
| Access/Visibility | Average/Average | | Similar | | Similar | | Inferior |
| | | | 0% | | 0% | | 5% |
| | | | - | | - | | 0.18 |
| Other Physical Features | Rectangular | | Similar | | Superior | | Superior |
| | | | 0% | | -10% | | -5% |
| | | | - | | (0.54) | | (0.18) |
| Zoning | Rs-2 | | Rs-3 | | Rs-5 | | Rs-3, UC |
| | | | 0% | | 0% | | 0% |
| | | | $ - | | $ - | | $ - |
| Total Adjustments | | | $ (0.32) | | $ (2.72) | | $ (0.18) |
| **FINAL ADJUSTED SALES PRICE/SF** | | | **1.28** | | **2.72** | | **3.41** |
| **AVERAGE ADJUSTED SALES PRICE/SF** | | | **$ 2.47** | | | | |
| **CONCLUDED LAND VALUE/SF** | | | **$1.80** | | | | |
| **SUBJECT SQUARE FOOTAGE** | | | **105,454** | | | | |
| **CONCLUDED LAND VALUE** | | | **$ 189,818** | | | | |
| **CONCLUDED LAND VALUE ROUNDED** | | | **$ 189,800** | | | | |

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**Land Value Conclusion**

After adjustments, the unit sale prices range from $1.28 to $3.41 per square foot, with an average of $2.47 per square foot. Primary weight was placed on Sale No. 1 because it is located on Duplainville Road near the subject site and was a very recent sale. Secondary support was provided from Sale Nos. 2 and 3. Based on this analysis, the subject property is estimated to have a unit value at $1.80 per square foot, between all three sales, which are all deemed similar to the subject site.

**Concluded Land Value**
**Before Acquisition**

| Square Feet | X | Value/SF | = | Value |
|---|---|---|---|---|
| 105,454 | X | $1.80 | = | $189,818 |

**Value Indication (Rounded): $189,800**

**Before Value**

The total "before" value is $330,000 ($189,800 - land + $140,200 - improvements, per assessment, rounded).

**Valuation of Permanent Limited Easement**

One Permanent Limited Easement of 0.01811-acres or approximately 789-square feet will encumber the subject. The Permanent Limited Easement is an area of land located along the west side of the subject site, adjacent to Duplainville Road. According to Project No. 21-01-4.02 Schedule of Lands and Interests Required, Plat Sheet 4 this Permanent Limited Easement area is for culvert maintenance.

It is our opinion that the Permanent Limited Easement area has some, but limited utility to the owner after the acquisition due to the presence of the culvert. The easement is located in the building setback area, hence, an area where improvements are not allowed to be built. The damages for Permanent Limited Easement are estimated at 50 percent of fee value of $1.80 per square foot ($1.80/SF X 50%), or $0.90 per square foot due to the loss of utility to the subject property in the "after" condition.

**Acquired Land Value Conclusion – Permanent Limited Easement**

**Acquired Land Value**
**Permanent Limited Easement**

| SF | X | Value/SF | = | Value |
|---|---|---|---|---|
| 789 | X | $0.90 | = | $711 |

**Land Value Indication (Rounded): $800**


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**Valuation of Site Improvements**

There are no site improvements in the Permanent Limited Easement. There are deciduous brush, shrubs and trees located in the Permanent Limited Easement area. In our opinion the brush, shrubs, and trees do not contribute any value to the underlying property. Therefore, no compensation is given.

**Severance Damage**

There is no severance damage associated with this acquisition.

**After Value**

The total "after" value is $330,000 ($189,800 - land + $140,200 - improvements, per assessment, rounded).

The following table presents the conclusion and allocation.

**Conclusion and Allocation**

| | |
|---|---|
| Market Value Before Acquisition: | $330,000 |
| Market Value Following Acquisition: | $330,000 |
| Loss in Market Value: | $0 |
| Permanent Limited Easement: | $800 |
| **Total Damages (Rounded):** | $800 |
| | |
| **Allocation of Damages** | |
| **Land:** | **$0** |
| **Site Improvements:** | **$0** |
| **Permanent Limited Easement:** | **$800** |
| **Total:** | **$800** |

This market value is based on assumptions and limiting conditions stated throughout the report, including specific extraordinary assumption assumptions and limiting conditions.


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## ASSUMPTIONS AND LIMITING CONDITIONS

1. Unless otherwise specifically noted in the body of the report, it is assumed that title to the property or properties appraised is clear and marketable and that there are no recorded or unrecorded matters or exceptions to total that would adversely affect marketability or value. The appraiser is not aware of any title defects nor has it been advised of any unless such is specifically noted in the report. The appraiser, however, has not examined title and makes no representations relative to the condition thereof. Documents dealing with liens, encumbrances, easements, deed restrictions, clouds and other conditions that may affect the quality of title have not been reviewed. Insurance against financial loss resulting in claims that may arise out of defects in the subject property's title should be sought from a qualified title company that issues or insures title to real property.

2. Unless otherwise specifically noted in the body of this report, it is assumed: that the existing improvements on the property or properties being appraised are structurally sound, seismically safe and code conforming; that all building systems (mechanical/electrical, HVAC, elevator, plumbing, etc.) are in good working order with no major deferred maintenance or repair required; that the roof and exterior are in good condition and free from intrusion by the elements; that the property or properties have been engineered in such a manner that the improvements, as currently constituted, conform to all applicable local, state, and federal building codes and ordinances. The appraiser is not an engineer and not competent to judge matters of an engineering nature. The appraiser has not retained independent structural, mechanical, electrical, or civil engineers in connection with this appraisal and, therefore, makes no representations relative to the condition of improvements. Unless otherwise specifically noted in the body of the report: no problems were brought to the attention of the appraiser by ownership or management; the appraiser inspected less than 100% of the entire interior and exterior portions of the improvements; and the appraiser was not furnished any engineering studies by the owners or by the party requesting this appraisal. If questions in these areas are critical to the decision process of the reader, the advice of competent engineering consultants should be obtained and relied upon. It is specifically assumed that any knowledgeable and prudent purchaser would, as a precondition to closing a sale, obtain a satisfactory engineering report relative to the structural integrity of the property and the integrity of building systems. Structural problems and/or building system problems may not be visually detectable. If engineering consultants retained should report negative factors of a material nature, or if such are later discovered, relative to the condition of improvements, such information could have a substantial negative impact on the conclusions reported in this appraisal. Accordingly, if negative findings are reported by engineering consultants, the appraiser reserves the right to amend the appraisal conclusions reported herein.

3. Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property was not observed by the appraisers. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, contaminated groundwater or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

   We have inspected, as thoroughly as possible by observation, the land; however, it was impossible to personally inspect conditions beneath the soil. Therefore, no representation is made as to these matters unless specifically considered in the appraisal.

4. All furnishings, equipment and business operations, except as specifically stated and typically considered as part of real property, have been disregarded with only real property being considered in the report unless otherwise stated. Any existing or proposed improvements, on or off-site, as well as any alterations or repairs considered, are assumed to be completed in a workmanlike manner according to standard practices based upon the information submitted to the appraiser. This report may be subject to amendment upon re-inspection of the subject property subsequent to repairs, modifications, alterations and completed new construction. Any estimate of Market Value is as of the date indicated; based upon the information, conditions and projected levels of operation.

5. It is assumed that all factual data furnished by the client, property owner, owner's representative, or persons designated by the client or owner to supply said data are accurate and correct unless otherwise specifically noted in the appraisal report. Unless otherwise specifically noted in the appraisal report, the appraiser has no reason to believe that any of the data furnished contain any material error. Information and data referred to in this paragraph include, without being limited to, numerical street addresses, lot and block numbers, Assessor's Parcel Numbers, land dimensions, square footage area of the land, dimensions of the improvements, gross building areas, net rentable areas, usable areas, unit count, room count, rent schedules, income data, historical operating expenses, budgets, and related data. Any material error in any of the above data could have a substantial impact on the conclusions reported. Thus, the appraiser reserves the right to amend conclusions reported if made aware of any such error. Accordingly, the client-addressee should carefully review all assumptions, data, relevant calculations, and conclusions within 30 days after the date of delivery of this report and should immediately notify the appraiser of any questions or errors.

6. The date of value to which any of the conclusions and opinions expressed in this report apply, is set forth in the Letter of Transmittal. Further, that the dollar amount of any value opinion herein rendered is based upon the purchasing power of the American Dollar on that date. This appraisal is based on market conditions existing as of the date of this appraisal. Under the terms of the engagement, we will have no obligation to revise this report to reflect events or conditions, which occur subsequent


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to the date of the appraisal. However, the appraiser will be available to discuss the necessity for revision resulting from changes in economic or market factors affecting the subject.

7. The appraiser assumes no private deed restrictions, limiting the use of the subject property in any way.

8. Unless otherwise noted in the body of the report, it is assumed that there is no mineral deposit or subsurface rights of value involved in this appraisal, whether they are gas, liquid, or solid. Nor are the rights associated with extraction or exploration of such elements considered unless otherwise stated in this appraisal report. Unless otherwise stated it is also assumed that there are no air or development rights of value that may be transferred.

9. The appraiser is not aware of any contemplated public initiatives, governmental development controls, or rent controls that would significantly affect the value of the subject.

10. The estimate of Market Value, which may be defined within the body of this report, is subject to change with market fluctuations over time. Market value is highly related to exposure, time promotion effort, terms, motivation, and conclusions surrounding the offering. The value estimate(s) consider the productivity and relative attractiveness of the property, both physically and economically, on the open market.

11. Any cash flows included in the analysis are forecasts of estimated future operating characteristics are predicated on the information and assumptions contained within the report. Any projections of income, expenses and economic conditions utilized in this report are not predictions of the future. Rather, they are estimates of current market expectations of future income and expenses. The achievement of the financial projections will be affected by fluctuating economic conditions and is dependent upon other future occurrences that cannot be assured. Actual results may vary from the projections considered herein. The appraiser does not warrant these forecasts will occur. Projections may be affected by circumstances beyond the current realm of knowledge or control of the appraiser.

12. Unless specifically set forth in the body of the report, nothing contained herein shall be construed to represent any direct or indirect recommendation of the appraiser to buy, sell, or hold the properties at the value stated. Such decisions involve substantial investment strategy questions and must be specifically addressed in consultation form.

13. Also, unless otherwise noted in the body of this report, it is assumed that no changes in the present zoning ordinances or regulations governing use, density, or shape are being considered. The property is appraised assuming that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, nor national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimates contained in this report is based, unless otherwise stated.

14. This study may not be duplicated in whole or in part without the specific written consent of the appraiser nor may this report or copies hereof be transmitted to third parties without said consent, which consent the appraiser reserves the right to deny. Exempt from this restriction is duplication for the internal use of the client-addressee and/or transmission to attorneys, accountants, or advisors of the client-addressee. Also exempt from this restriction is transmission of the report to any court, governmental authority, or regulatory agency having jurisdiction over the party/parties for whom this appraisal was prepared, provided that this report and/or its contents shall not be published, in whole or in part, in any public document without the express written consent of the appraiser which consent the appraiser reserves the right to deny. Finally, this report shall not be advertised to the public or otherwise used to induce a third party to purchase the property or to make a "sale" or "offer for sale" of any "security", as such terms are defined and used in the Securities Act of 1933, as amended. Any third party, not covered by the exemptions herein, who may possess this report, is advised that they should rely on their own independently secured advice for any decision in connection with this property. The appraiser shall have no accountability or responsibility to any such third party.

15. Any value estimate provided in the report applies to the entire property, and any pro ration or division of the title into fractional interests will invalidate the value estimate, unless such pro ration or division of interests has been set forth in the report.

16. The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. Component values for land and/or buildings are not intended to be used in conjunction with any other property or appraisal and are invalid if so used.

17. The maps, plats, sketches, graphs, photographs and exhibits included in this report are for illustration purposes only and are to be utilized only to assist in visualizing matters discussed within this report. Except as specifically stated, data relative to size or area of the subject and comparable properties has been obtained from sources deemed accurate and reliable. None of the exhibits are to be removed, reproduced, or used apart from this report.

18. No opinion is intended to be expressed on matters which may require legal expertise or specialized investigation or knowledge beyond that customarily employed by real estate appraisers. Values and opinions expressed presume that environmental and other governmental restrictions/conditions by applicable agencies have been met, including but not limited to seismic hazards, flight patterns, decibel levels/noise envelopes, fire hazards, hillside ordinances, density, allowable uses, building codes, permits, licenses, etc. No survey, engineering study or architectural analysis has been made known to the appraiser unless otherwise stated within the body of this report. If the Consultant has not been supplied with a termite inspection, survey or occupancy permit, no


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responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranty is made concerning obtaining these items. The appraiser assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for the Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

19. Acceptance and/or use of this report constitutes full acceptance of the Contingent and Limiting Conditions and special assumptions set forth in this report. It is the responsibility of the Client, or client's designees, to read in full, comprehend and thus become aware of the aforementioned contingencies and limiting conditions. The Appraiser assumes no responsibility for any situation arising out of the Client's failure to become familiar with and understand the same. The Client is advised to retain experts in areas that fall outside the scope of the real estate appraisal/consulting profession if so desired.

20. The appraiser assumes that the subject property analyzed herein will be under prudent and competent management and ownership; neither inefficient or super-efficient.

21. Professional fees for additional services will be based on actual time spent at a regular hourly of $200 per hour. Professional fees for Litigation Services will be based on actual time spent at a regular hourly of $200 per hour.

22. It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal report.

23. No survey of the boundaries of the property was undertaken. All areas and dimensions furnished are presumed to be correct. It is further assumed that no encroachments to the realty exist.

24. The *Americans with Disabilities Act* (ADA) became effective January 26, 1992. Notwithstanding any discussion of possible readily achievable barrier removal construction items in this report, the appraiser has not made a specific compliance survey and analysis of this property to determine whether it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ADA. If so, this fact could have a negative effect on the value estimated herein. Since the appraiser has no specific information relating to this issue, nor is the appraiser qualified to make such an assessment, the effect of any possible non-compliance with the requirements of the ADA was not considered in estimating the value of the subject property.

25. Client shall not indemnify Appraiser or hold Appraiser harmless unless and only to the extent that the Client misrepresents, distorts, or provides incomplete or inaccurate appraisal results to others, which acts of the Client proximately result in damage to Appraiser. The Client shall indemnify and hold Appraiser harmless from any claims, expenses, judgments or other items or costs arising as a result of the Client's failure or the failure of any of the Client's agents to provide a complete copy of the appraisal report to any third party. In the event of any litigation between the parties, the prevailing party to such litigation shall be entitled to recover from the other reasonable attorney fees and costs.


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**ADDENDA**


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# ADDENDUM A
# GLOSSARY OF TERMS


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**assessed value** Assessed value applies in ad valorem taxation and refers to the value of a property according to the tax rolls. Assessed value may not conform to market value, but it is usually calculated in relation to a market value base.

**cash equivalency** The procedure in which the sale prices of comparable properties sold with atypical financing are adjusted to reflect typical market terms.

**contract, coupon, face, or nominal rent** The nominal rent payment specified in the lease contract. It does not reflect any offsets for free rent, unusual tenant improvement conditions, or other factors that may modify the effective rent payment.

**coupon rent**
*See* Contract, Coupon, Face, or Nominal Rent

**effective rent** 1) The rental rate net of financial concessions such as periods of no rent during a lease term; may be calculated on a discounted basis, reflecting the time value of money, or on a simple, straight-line basis. 2) The economic rent paid by the lessee when normalized to account for financial concessions, such as escalation clauses, and other factors. Contract, or normal, rents must be converted to effective rents to form a consistent basis of comparison between comparables.

**face rent**
*See* Contract, Coupon, Face, or Nominal Rent

**fee simple estate** Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.‡

**floor area ratio (FAR)** The relationship between the above-ground floor area of a building, as described by the building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area; also called *building-to-land ratio.*‡

**full service lease** A lease in which rent covers all operating expenses. Typically, full service leases are combined with an *expense stop*, the expense level covered by the contract lease payment. Increases in expenses above the expense stop level are passed through to the tenant and are known as *expense pass-throughs*.

**going concern value** Going concern value is the value of a proven property operation. It includes the incremental value associated with the business concern, which is distinct from the value of the real estate only. Going concern value includes an intangible enhancement of the value of an operating business enterprise which is produced by the assemblage of the land, building, labor, equipment, and marketing operation. This process creates an economically viable business that is expected to continue. Going concern value refers to the total value of a property, including both real property and intangible personal property attributed to the business value.†

**gross building area (GBA)** The sum of all areas at each floor as measured to the exterior walls.

**insurable value** Insurable Value is based on the replacement and/or reproduction cost of physical items that are subject to loss from hazards. Insurable value is that portion of the value of an asset or asset group that is acknowledged or recognized under the provisions of an applicable loss insurance policy. This value is often controlled by state law and varies from state to state.†

**investment value** Investment value is the value of an investment to a particular investor based on his or her investment requirements. In contrast to market value, investment value is value to an individual, not value in the marketplace. Investment value reflects the subjective relationship between a particular investor and a given investment. When measured in dollars, investment value is the price an investor would pay for an investment in light of its perceived capacity to satisfy his or her desires, needs, or investment goals. To estimate investment value, specific investment criteria must be known. Criteria to evaluate a real estate investment are not necessarily set down by the individual investor; they may be established by an expert on real estate and its value, that is, an appraiser.†

**leased fee**
*See* leased fee estate

**leased fee estate** An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.‡

**leasehold**
*See* leasehold estate

**leasehold estate** The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.‡

**load factor** The amount added to usable area to calculate the rentable area. It is also referred to as a "rentable add-on factor" which, according to BOMA, "is computed by dividing the difference between the usable square footage and rentable square footage by the amount of the usable area. Convert the figure into a percentage by multiplying by 100.

**market value "as if complete" on the appraisal date** Market value as if complete on the appraisal date is an estimate of the market value of a property with all construction, conversion, or rehabilitation hypothetically completed, or under other specified hypothetical conditions as of the date of the appraisal. With regard to properties wherein anticipated market conditions indicate that stabilized occupancy is not likely as of the date of completion, this estimate of value should reflect the market value of the property as if complete and prepared for occupancy by tenants.

**market value "as is" on the appraisal date** Market value "as is" on the appraisal date is an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of appraisal.

**market value** Market value is one of the central concepts of the appraisal practice. Market value is differentiated from other types of value in that it is created by the collective patterns of the market. Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: 1) A reasonable time is allowed for exposure in the open market; 2) Both parties are well informed or well advised, and acting in what they consider their own best interests; 3) Buyer and seller are typically motivated; 4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and 5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

**marketing period** The time it takes an interest in real property to sell on the market subsequent to the date of an appraisal.‡

**net lease** in which all or some of the operating expenses are paid directly by the tenant. The landlord never takes possession of the


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expense payment. In a *Triple Net Lease* all operating expenses are the responsibility of the tenant, including property taxes, insurance, interior maintenance, and other miscellaneous expenses. However, management fees and exterior maintenance are often the responsibility of the lessor in a triple net lease. A *modified net lease* is one in which some expenses are paid separately by the tenant and some are included in the rent.

**net rentable area (NRA)** 1) The area on which rent is computed. 2) The Rentable Area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building. Include space such as mechanical room, janitorial room, restrooms, and lobby of the floor.

**nominal rent**
*See* Contract, Coupon, Face, or Nominal Rent

**prospective future value "upon completion of construction"** Prospective future value "upon completion of construction" is the prospective value of a property on the future date that construction is completed, based upon market conditions forecast to exist, as of that completion date. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**prospective future value "upon reaching stabilized occupancy"** Prospective future value "upon reaching stabilized occupancy" is the prospective value of a property at a future point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. The value estimate at this stage is stated in current dollars unless otherwise indicated.

**reasonable exposure time** The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

**rent**
*see*
full service lease
net lease
contract, coupon, face, or nominal rent
effective rent

**shell space** which has not had any interior finishing installed, including even basic improvements such as ceilings and interior walls, as well as partitions, floor coverings, wall coverings, etc..

**Usable Area** 1) The area actually used by individual tenants. 2) The Usable Area of an office building is computed by measuring to the finished surface of the office side of corridor and other permanent walls, to the center of partitions that separate the office from adjoining usable areas, and to the inside finished surface of the dominant portion of the permanent outer building walls. Excludes areas such as mechanical rooms, janitorial room, restrooms, lobby, and any major vertical penetrations of a multi-tenant floor. *

**use value** Use value is a concept based on the productivity of an economic good. Use value is the value a specific property has for a specific use. Use value focuses on the value the real estate contributes to the enterprise of which it is a part, without regard to the property's highest and best use or the monetary amount that might be realized upon its sale. †

**value appraised** During the real estate development process, a property typically progresses from a state of unimproved land to construction of improvements to stabilized occupancy. In general, the market value associated with the property increases during these stages of development. After reaching stabilized occupancy, ongoing forces affect the property during its life, including a physical wear and tear, changing market conditions, etc. These factors continually influence the property's market value at any given point in time.
*See also*
market value "as is" on the appraisal date
market value "as if complete" on the appraisal date
prospective future value "upon completion of construction"
prospective future value "upon reaching stabilized occupancy"


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**ADDENDUM B**

**SUBJECT PHOTOGRAPHS**


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**SUBJECT PROPERTY LOOKING EAST**



**PLE LOOKING NORTHEAST**


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**PLE LOOKING SOUTH**



**PLE LOOKING NORTH**


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**ADDENDUM C**

**COMPARABLE LAND SALES**


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## LAND SALE NO. 1



**Property Identification**

| | |
|---|---|
| Location: | Lot 1 Duplainville Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.8254-acres or 35,955-square feet |
| Zoning: | Rs-3 Single-Family Residential District |
| Topography: | Generally level |
| Utilities: | Sewer available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0868996001 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | February 11, 2022 |
| Sale Price: | $52,500 |
| Sale Price/SF: | $1.46 |
| Sale Price/Acre: | $63,606 |
| Grantor: | H&F Properties, LLC |
| Grantee: | Tyler Morgan |
| Document No.: | 4651813 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor Anthony Kersten of Cherry Home Realty – listing agent, Sarah Keily of Shorewest – selling agent |
| Verified To: | Jason Williams |
| Legal Description: | Parcel 1 of Certified Survey Map No. 2514, recorded in Waukesha County Register of Deeds on February 25, 1976,in Volume 18 of Certified Survey Maps, on Pages 173, 174and 175, as Document No. 941058, part of the Southwest 1/4of the Southeast 1/4, and the Southeast 1/4 of the Southwest1/4 of Section 1, Township 7 North, Range 19 East, in the City of Pewaukee, County of Waukesha, State of Wisconsin. |


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**Comments:**

The parcel is located along the east side of Duplainville Road near the subject site and just north of Capitol Drive and south of Weyer Road. The property has average access and visibility with generally level topography. The property is zoned Rs-3 and allows for single-family residential uses. Sewer service is available not water. The property was listed for sale twice in the past two years. The first listing was March 20, 2020 for $65,000, which expired after 184 days. The second listing began February 18, 2021 for an asking price of $65,000. Days on Market (DOM) reached 329 days before the sale at $52,500. Based on a discussions with the listing and selling agents the buyers intend to build a single-family house. The listing agent indicated that the sale price was below the list price because the buyer will need to extend water service from the west side of Duplainville Road to the east side where the property is located. The sale is located on the project road.

**Parcel Map**





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**LAND SALE NO. 2**



**Property Identification**

| | |
|---|---|
| Location: | Lot 14 Wyndemere Court<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 0.5485-acres or 23,893-square feet |
| Zoning: | Rs-5 Single-Family Residential District |
| Topography: | Generally Level |
| Utilities: | All Available |
| Intended Use: | Residential |
| Tax Key Number: | PWC 0910071 |

**Sale Data**

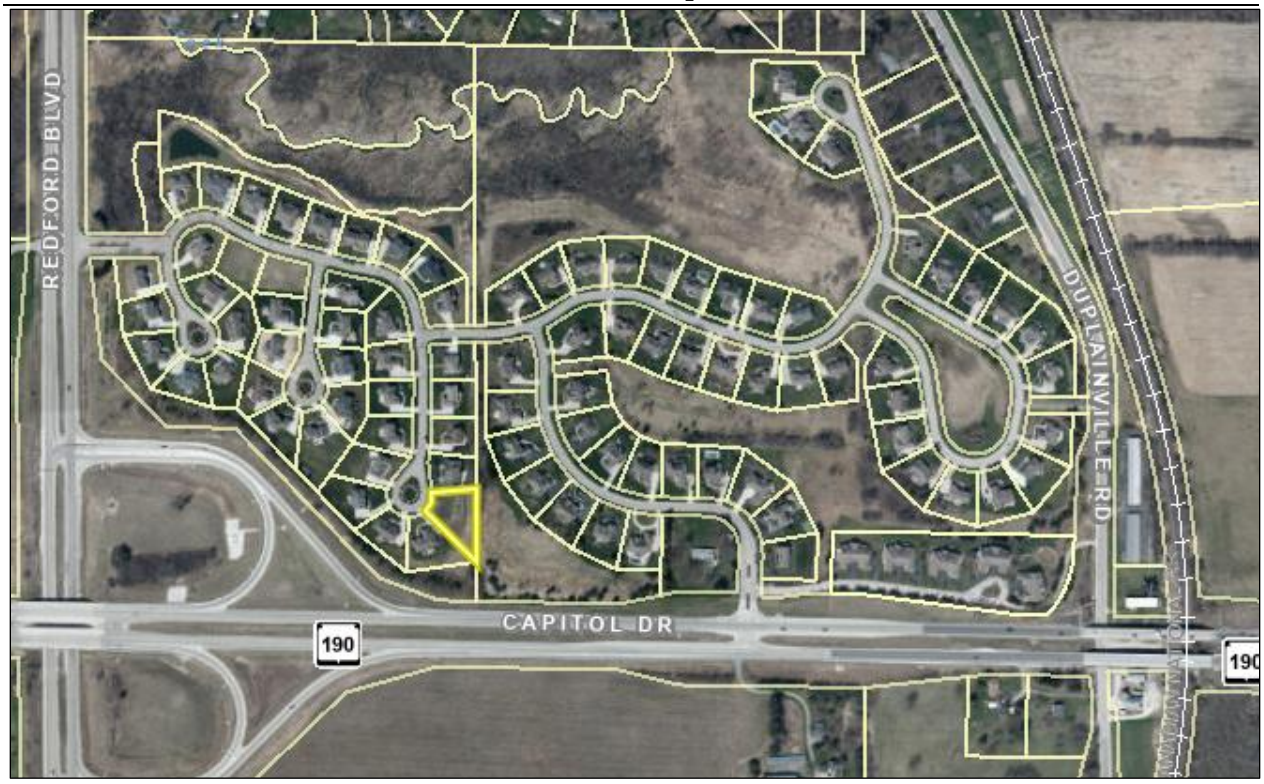
| | |
|---|---|
| Date of Sale: | October 29, 2021 |
| Sale Price: | $130,000 |
| Sale Price/SF: | $5.44 |
| Sale Price/Acre: | $237,010 |
| Grantor: | D&B Mierow, LLC |
| Grantee: | Denali Realty Group, LLC |
| Document No.: | 4631192 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot Fourteen (14), together with an undivided interest inOutlots 1, 2, 3, 4 and 5, all in Wyndemere, being aSubdivision of a part of the Northwest One-quarter (1/4) andSouthwest One-quarter (1/4) of the Northwest One-quarter(1/4) of Section Twelve (12), Township Seven (7) North,Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, and an affidavit of Correction recorded on June 8, 2005, as Document No. 3283892. |

**Comments:**


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The parcel is located along the east side of Wyndemere Court, just west of Duplainville Road, east of Redford Boulevard, and north of Capitol Drive. The property has average access and visibility with generally level topography. The property is zoned Rs-5 and allows for single-family residential uses. Water and sewer service are available.

**Parcel Map**





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## LAND SALE NO. 3



**Property Identification**

| | |
|---|---|
| Location: | Lot 2 Glacier Road<br>City of Pewaukee, Waukesha County, Wisconsin |

**Property Description**

| | |
|---|---|
| Land Area: | Approximately 2.1104-acres or 91,929-square feet |
| Zoning: | Rs-3 Single-Family Residential District/UC, Upland Conservancy |
| Topography: | Generally Level, downwards sloping to south, wooded |
| Utilities: | Sewer Available |
| Intended Use: | Unknown |
| Tax Key Number: | PWC 0890999006 |

**Sale Data**

| | |
|---|---|
| Date of Sale: | September 30, 2021 |
| Sale Price: | $300,000 |
| Sale Price/SF: | $3.26 |
| Sale Price/Acre: | $142,153 |
| Grantor: | Gary R. Klatt |
| Grantee: | Andrew and Candace Johnson |
| Document No.: | 4624166 |
| Conveyance: | Warranty Deed |
| Financing: | Conventional |
| Verified By: | IPAS, Public Records, MLS, Rhett Tuff – Pewaukee Assessor |
| Verified To: | Jason Williams |
| Legal Description: | Lot 2 and Outlot 2 of Certified Survey Map No. 11922, being a redivision of all of Lots 1, 2 and 3 of Certified Survey Map No.8822 being a division of Lot 2 of Certified Survey Map No.4581 being part of the Southeast 1/4 of the Southwest 1/4Section 6 and the Northeast 1/4 of the Northwest 1/4 of Section 7, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, recorded in the office of the Register of Deeds for Waukesha County on October 15, 2019 in Book 120, Pages 301-305, as Document No. 4428613. |

**Comments:**


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The parcel is located along the south side of Glacier Road, just east of North Shore Drive and south of Hwy 16. The property has below-average access and visibility with generally level topography with downward sloping to the south. The property is bifurcated with a non-contiguous area located on Pewaukee Lake. Parcel 999011 and a rail system separate these two areas of the parcel. The property is zoned Rs-3 and Upland Conservancy and allows for single-family residential uses. Sewer service is available not water. The property was marketed as having a view of Pewaukee Lake.

**Parcel Map**





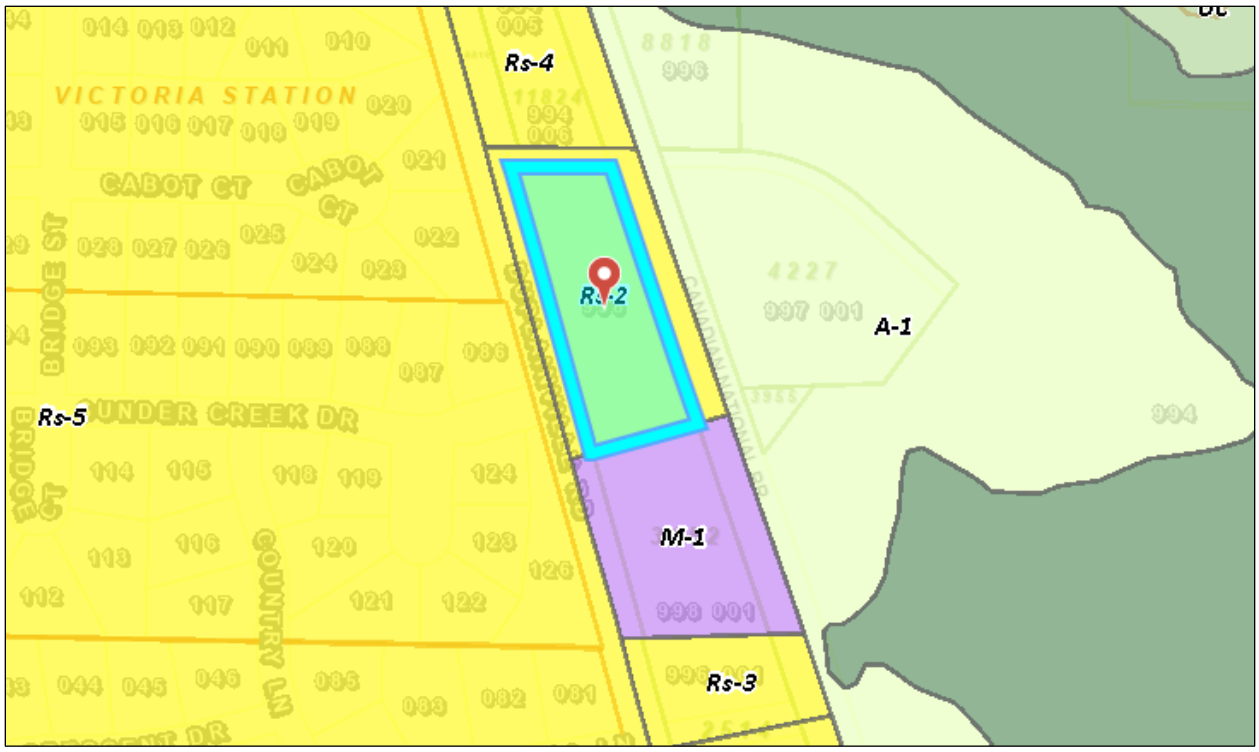
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**ADDENDUM D**

**ZONING MAP & CODE**


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## ZONING MAP




**CITY OF PEWAUKEE MUNICIPAL CODE 30 of 191**
**CHAPTER 17 – ZONING Last Revision: 10/2014**

**17.0406 Rs-2, SINGLE-FAMILY RESIDENTIAL DISTRICT**

The Rs-2, Single-Family Residential District is intended to provide for only detached single-family residential development in predominantly rural areas where historic development patterns or lack of public utilities make impractical the use of the Rs-1 or Rs-3 district regulations, and at densities not to exceed 0.50 dwelling unit per net acre.

a. Permitted Principal Uses

(1) One Single-family dwelling with attached or detached garages as defined in section 17.1402.

(2) Foster homes and community living arrangements, including CBRFs, as set forth in Wisconsin Statutes.

(3) Family day-care home as set forth in Section 66.1017 of Wisconsin Statutes.

b. Permitted Accessory Uses

(1) Home occupations and professional home offices as defined herein.

(2) Yard and gardening equipment storage structures not exceeding 192 square feet in area. (Also see section 17.0700).

(3) Hobby Kennels. (Cr. 13-09)

c. Repealed 13-09

d. Lot Area and Width

(1) Lots shall have a minimum area of 2.0 net acres.

(2) Lots shall have a width of not less than 220 feet at the building setback line.


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e. Building Height and Size
(1) No principal building or parts of a principal building shall exceed 35 feet in height.
(2) No accessory structure shall be more than 18 feet in height.
(3) The minimum floor area of one or two-story dwelling unit shall be as follows:

| Number of Bedrooms Per Dwelling | Unit Minimum | Total Area Minimum First Floor Area |
|---|---|---|
| One | 1,200 square feet | 1,200 square feet |
| Two | 1,300 square feet | 1,200 square feet |
| Three | 1,500 square feet | 1,200 square feet |
| Four or More | 1,700 square feet | 1,200 square feet |

No bedroom shall be less than 100 square feet in area exclusive of closets.
(4) The sum total of the first floor area of the principal building and all accessory buildings shall not exceed 6.0 percent of the lot area.
f. Setback and Yards
(1) There shall be a minimum building (or street) setback of 45 feet from the right-of-way of all public streets, roads, or highways.
(2) There shall be a side yard on each side of all structures not less than 25 feet in width.
(3) There shall be a rear yard of not less than 35 feet.
(4) There shall be a minimum building setback of 75 feet from the designated 100 year recurrence interval (base flood) floodplain of all navigable streams and bodies of water and 25 feet from any designated wetland. (Also see sub-section 17.0435)
(5) There shall be a minimum set back of 100 feet from any abutting property for any building primarily used for housing or sheltering animals.
g. Parking Space
See Section 17.0600
h. Minimum Utility Service
Electricity, approved private water supply, and an approved on-site soil absorption sanitary sewage disposal system. All on-site soil absorption sanitary disposal systems must be approved by the Waukesha County Health and Human Services Department prior to installation. Note: If public sanitary sewerage and/or water supply facilities are available to the property, no on-site sewage disposal system or private water supply system will be permitted to be constructed.


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**ADDENDUM E**

**LEGAL DESCRIPTIONS**


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PART OF THE EAST 1/2 OF THE SOUTHWEST 1/4 AND PART OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF SECTION 1, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF PEWAUKEE, COUNTY OF WAUKESHA, WISCONSIN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTH 1/4 MONUMENT SECTION 1, TOWNSHIP 7 NORTH, RANGE 19 EAST; THENCE NORTH 87 DEGREES, 41 MINUTES WEST, 31.5 FEET TO CENTERLINE OF DUPLAINVILLE ROAD; THENCE NORTH 16 DEGREES, 54 MINUTES WEST ON LONG CHORD OF CURVE (C/L TO LEFT), 287.5 FEET TO POINT OF TANGENT; THENCE NORTH 14 DEGREES, 39 MINUTES WEST ON CENTER LINE, 444.5 FEET TO PLACE OF BEGINNING OF THIS DESCRIPTION: THENCE CONTINUING NORTH 14 DEGREES, 39 MINUTES WEST, 927.7 FEET; THENCE SOUTH 88 DEGREES, 25 MINUTES EAST, 231.35 FEET TO WESTERLY RIGHT OF WAY LINE OF SOO LINE RAILROAD; THENCE SOUTH 18 DEGREES, 07 MINUTES EAST ON SAID RIGHT OF WAY LINE, 936.59 FEET; THENCE SOUTH 89 DEGREES, 48 MINUTES WEST, 287.75 FEET TO CENTERLINE OF HIGHWAY AND PLACE OF BEGINNING. EXCEPTING THEREFROM CERTIFIED SURVEY MAP NO. 3152, RECORDED NOVEMBER 28, 1977 IN VOLUME 23 OF CERTIFIED SURVEY MAPS ON PAGE 269 AS DOCUMENT NO. 1026223.

TAX KEY NO. PWC 0867.998

ADDRESS: W225N4226 DUPLAINVILLE.


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## LEGAL DESCRIPTION "ACQUISITION"

**Project ID 21-01**
**Parcel No. 6**
**Owner: Thomas and Marcia Mueller**
**Interest: PLE**

Parcel 6 of Transportation Project Plat 21-01-4.03 recorded as Document No. 4651916 on February 15, 2022, at the Register of Deeds office in Waukesha County, Wisconsin.

Property interests and rights of said Parcel 6 consist of:

**Permanent Limited Easement**

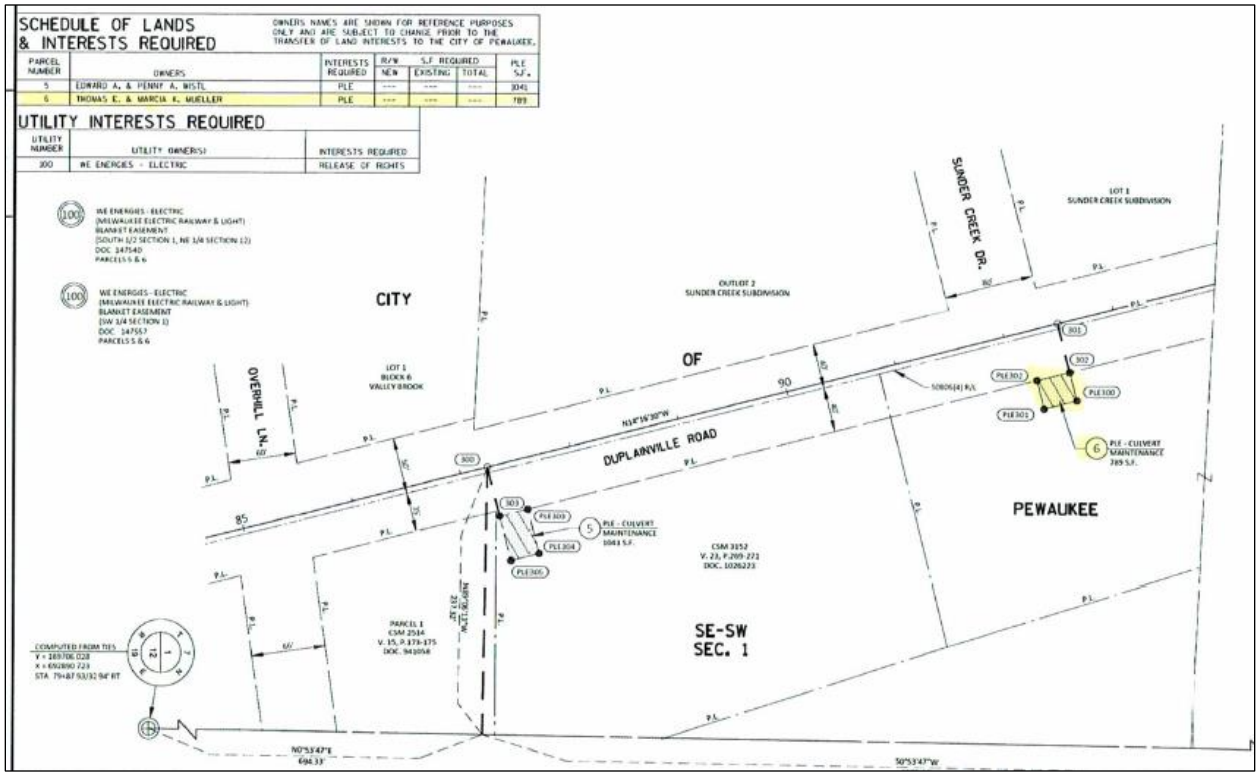

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**ADDENDUM F**

**ACQUISITION PLAT**


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## ACQUISITION PLAT



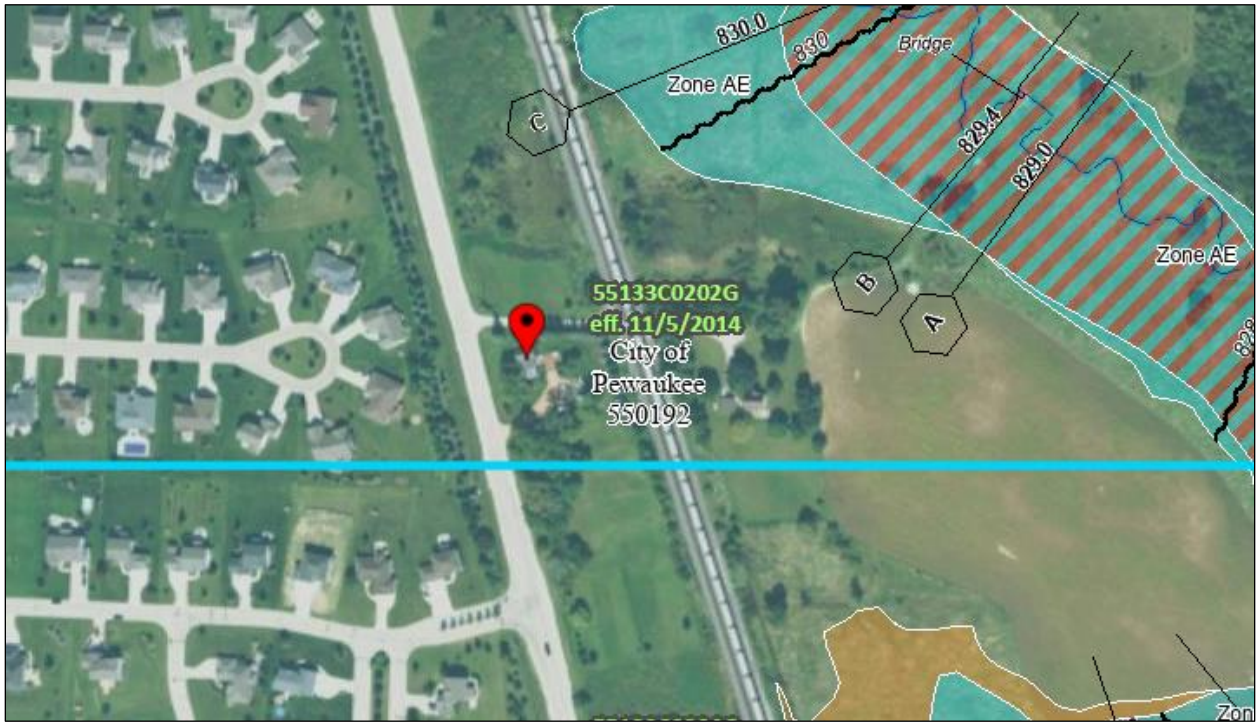


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**ADDENDUM G**

**FLOOD PLAIN MAP**


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# ADDENDUM H
# QUALIFICATIONS


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## QUALIFICATIONS
## STEPHEN D. BOLL

**PROFESSIONAL POSITION:**

Counselor specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, feasibility, ad valorem tax analysis, condemnation, and marketability studies.

**EDUCATION:**

Bachelor of Science, Economics, University of Wisconsin-Madison, 1990

Master of Science, Urban & Regional Planning with an emphasis in Real Estate Analysis, 1992

Successfully completed the following courses of the Appraisal Institute:

Basic Valuation Procedures
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Standards of Professional Practice Parts A & B

International Right of Way Association Seminar–Sale Studies & Nominal Acquisition

International Right-of-Way Association Course 200 – Principles of Real Estate Negotiation

International Right of Way Association Course 401–The Appraisal of Partial Acquisitions

International Right of Way Association Course 501–Relocation Assistance

**PROFESSIONAL CERTIFICATIONS**

Wisconsin Certified General Appraiser #872

Wisconsin Licensed Real Estate Broker

Wisconsin Department of Transportation Certified Negotiator

Currently an International Right of Way Association candidate for the SR/WA designation

Currently an Appraisal Institute candidate for the MAI designation

**SKILLS**

Computer literate with the windows and Macintosh environments; software literate with WordPerfect, Word, Lotus 123, Excel and Argus.

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2003 – Present | Single Source Inc |
| 1998 – 2003 | HNTB Corporation, Milwaukee WI, Real Estate Project Manager |
| 1996 – 1997 | Metropolitan Appraisal, Commercial & Residential Appraiser |
| 1995 – 1996 | Hamilton County Auditors Office, Cincinnati OH, Commercial Appraiser |
| 1992 - 1995 | Stewart Lazowick & Associates, Plantation FL, Residential & Commercial Appraiser |


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## QUALIFICATIONS
## JASON M. WILLIAMS

**PROFESSIONAL POSITION:**

Real Estate Consultant specializing in all phases of commercial and industrial real estate valuation and evaluation including appraisal, ad valorem tax analysis, condemnation, and government real estate projects.

**EDUCATION:**

Bachelor of Science, Geography & Earth Science, University of Wisconsin-La Crosse, 2000

Master of Science, Urban & Regional Planning with an emphasis in Real Estate, University of Wisconsin-Madison, 2003

Successfully completed the following appraisal courses:

- Eminent Domain and Condemnation
- Appraisal of Industrial and Flex Buildings
- Appraisal of Assisted Living Facilities
- Appraisal of Self-Storage Facilities
- Appraisal of Fast Food Facilities
- Evaluating Commercial Construction
- Marketability Studies: Six Step Process & Basic Applications
- Real Estate Law
- Urban and Regional Economics

**PROFESSIONAL CERTIFICATIONS**

- Wisconsin Certified General Appraiser #2160-10
- Wisconsin Certified Assessor Level 2 and Level 3
- Currently a candidate for designation with the International Association of Assessing Officers

**PROFESSIONAL EXPERIENCE:**

| | |
|---|---|
| 2022 – Present | Single Source, Inc., Appraiser |
| 2013 – Present | City of West Allis – City Assessor |
| 2012 – Present | Real Estate Underwriting Services, Commercial Review Appraiser |
| 2007 – 2013 | City of Brookfield, Neighborhood Planner |
| 2004 – 2007 | Continental Properties Company, Inc., Development Coordinator |
| 2003 – 2004 | City of West Allis, Planner I |


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COMMON COUNCIL – CITY OF PEWAUKEE
RESOLUTION #22-03-09

RELOCATION ORDER OF THE CITY OF PEWAUKEE
WAUKESHA COUNTY, WISCONSIN
(Duplainville Road Bridge Replacement)

NOW COMES the City of Pewaukee, Waukesha County, Wisconsin, by its Common Council and for its Relocation Order hereby resolves as follows:

1. That this Resolution is a Relocation Order in accordance with §32.05(1), Wisconsin Statutes, for the purposes of the within described public improvement project and it is also a determination of necessity for that project in accordance with §32.07(2), Wisconsin Statutes.
2. That the City of Pewaukee hereby determines that it is a necessary and public purpose to construct public improvements as shown on the maps attached hereto, made a part hereof and marked Exhibit "A-1" through "A-3".
3. That said public improvements (road, trail, and drainage improvements) will be built as set forth on the maps which are annexed to this Relocation Order as Exhibits "A-1" through "A-3" and are incorporated herein.
4. That the sites of said public improvements (road, trail, and drainage improvements) are contained in Exhibits "A-1" and "A-3" which are incorporated herein; that the legal descriptions to said site are attached hereto, made a part hereof and marked Exhibits "A-2" and "A-3".
5. That the City of Pewaukee will acquire permanent easements or right of way for public improvements (road, trail, and drainage improvements) as indicated on Exhibits "A-1" through "A-3".

Passed and approved this 7th day of March, 2022.

I hereby certify that on this 7th day of March, 2022, the within Relocation Order was adopted by a vote of ____ ayes to ____ nays by the Common Council of the City of Pewaukee, Waukesha County, Wisconsin.

APPROVED: CITY OF PEWAUKEE

Steven Bierce, Mayor

ATTEST:

KELLY TARCZEWSKI, Clerk

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 6.

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action to Award Northview Road Sidewalk Construction to the Lowest Qualified Bidder, Wolf Paving Company Inc., in the Amount of $100,324.00. [Wagner]

***BACKGROUND:***

The Northview Sidewalk Extension will extend the sidewalk from just west of Meadowbrook Road to South Park. This project was bid in 2021, but received no bids. It was bid in 2022 with the Meadowbrook Farms Phase 2 Road project. The lowest qualified bid was from Wolf Paving Company Inc. for $100,324.00. Adding in engineering, administration, and contingency, the total cost of the project is estimated at $130,421.20.

***FINANCIAL IMPACT:***

The 2022 budget included $xxxx for the Northview Sidewalk Extension. The project will also use the Hike/Bike Impact Fees.

***RECOMMENDED MOTION:***

Council approve the Northview Sidewalk Contract to the lowest qualified bidder, Wolf Paving Company, in the amount of $100,324.00.

**ATTACHMENTS:**

Description

Recommendation of Award

February 22, 2022

Ms. Magdelene J. Wagner, P.E
Director of Public Works
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072

RE: Meadowbrook Farms Phase 2 (RD-22-57554)
and Northview Road Sidewalk (HB-22-58230)

Dear Ms. Wagner:

Bids for the above project were opened on February 17, 2022 at 1000 a.m. at the City Hall and were as follows:

| | BIDDER | Contract A | Contract B | MA-Items | TOTAL |
|---|---|---|---|---|---|
| 1. | Wolf Paving Co., Inc. | $919,142.75 | $100,324.00 | $15,700.00 | $1,035,166.75 |
| 2. | All-Ways Contractors, Inc. | $914,520.00 | $109,287.00 | $15,700.00 | $1,039,507.00 |
| 3. | Payne & Dolan, Inc. | $949,075.66 | $115,679.72 | $28,500.00 | $1,093,255.38 |
| 4. | Stark Pavement Corporation | $992,459.48 | $205,736.97 | $28,785.00 | $1,226,981.45 |

We reviewed the documentation submitted by the apparent low bidder and found that:

1. The Bid Form has been appropriately completed.

2. We have no objections to the low bidder, nor to the proposed major subcontractors and suppliers.

3. Low bidder has successfully completed similar projects over the last several years.

On these bases, we recommend that Wolf Paving Co., Inc. be awarded the Meadowbrook Farms Phase 2 (RD-22-57554) and Northview Road Sidewalk (HB-22-58230) contract, in the amount of $1,035,166.75. This amount is based on the bid unit prices and estimated quantities. Actual quantities, and therefore the final contract price, may vary. On all construction projects unpredictable factors may increase the final contract amount. For this reason, we recommend that the City include a 10 percent contingency when preparing the financial plan for this work.

Our review did not include an evaluation of bidder's current financial condition nor of their permanent safety program.

Should you decide to accept our recommendation, we have prepared the enclosed Notice of Award for your use. After City approval has been received, please have the appropriate official sign where indicated and forward a signed copy of the Notice of Award to our office. We will then fill in the date at the top of page one and forward it, with contracts for execution, to the Contractor. One fully completed Notice of Award will be returned to you for your records.

Bids remain subject to acceptance until April 18, 2022, unless Bidder agrees to an extension. Please advise us of your award decision, or call if there are any questions.

Respectfully,

RUEKERT & MIELKE, INC.

Kenneth R. Ward, P.E. (WI)
Vice President/Office Manager
kward@ruekert-mielke.com

KRW:sjs
Encl: Notice of Award
Bid Tabulation

cc: Michaelis Gabby, City of Pewaukee
Greg R. Calhoun, P.E., Ruekert & Mielke, Inc.
DeLeah M. Willman, E.I.T., Ruekert & Mielke, Inc.

## NOTICE OF AWARD

Date of Issuance: _____

| | | | |
|---|---|---|---|
| | | Owner: | City of Pewaukee |
| Contract: | Meadowbrook Farms Phase 2 and Northview Road Sidewalk | Owner's Contract No.: | RD-22-57554<br>HB-22-58230 |
| Bidder: | Wolf Paving Co., Inc. | Engineer: | Ruekert & Mielke, Inc. |
| Address: | 612 N. Sawyer Road<br>Oconomowoc, WI 53066 | Engineer's Project No.: | 26-10145.200 |

TO BIDDER:

You are notified that your Bid dated February 17, 2022 for the above Contract has been accepted by Owner and you are the Successful Bidder and are awarded a Contract for:

Meadowbrook Farms Phase 2 and Northview Road Sidewalk
Contract A, Contract B and Mandatory Alternate Items.

The Contract Price of your Contract is: $ 1,035,166.75

Two (2) copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award or have been transmitted or made available to Bidder electronically.

Two (2) sets of the Drawings will be delivered separately, or otherwise made available to Bidder electronically.

Bidder must comply with the following conditions precedent within 15 days of the date of issuance of this Notice of Award:

1. Deliver to Engineer two (2) fully executed counterparts of the Contract Documents.
2. Deliver with the executed Agreement the Performance Bond, Payment Bond as specified in the Instructions to Bidders (Article 21), General Conditions (Paragraph 6.01).
3. Deliver with the executed Agreement certificates and other evidence of insurance as specified in the General Conditions (Article 6) and the Supplementary Conditions modifying Article 6 of the General Conditions.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Engineer will return to you one fully executed counterpart of the Agreement.

Owner**:** City of Pewaukee

Signature: _____
Authorized Signature

Title: _____

Date: _____

Copy: Engineer

Ruekert • Mielke
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

# COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| | **Contract A-Meadowbrook Farms Phase 2** | | | | | | | | | | |
| 1 | Mobilization | L.S. | 1 | $27,000.00 | $27,000.00 | $15,660.00 | $15,660.00 | $30,000.00 | $30,000.00 | $13,500.00 | $13,500.00 |
| 2 | Traffic control | L.S. | 1 | $4,400.00 | $4,400.00 | $1,250.00 | $1,250.00 | $5,191.75 | $5,191.75 | $8,900.00 | $8,900.00 |
| 3 | Inlet sediment guards type "C" | EA. | 35 | $58.00 | $2,030.00 | $60.00 | $2,100.00 | $60.00 | $2,100.00 | $56.11 | $1,963.85 |
| 4 | Dust control using water (Ordered by Engineer) | 1000 GAL | 5 | $100.00 | $500.00 | $100.00 | $500.00 | $26.06 | $130.30 | $100.00 | $500.00 |
| 5 | Full depth saw cut pavement | L.F. | 75 | $4.00 | $300.00 | $2.25 | $168.75 | $0.50 | $37.50 | $5.00 | $375.00 |
| 6 | Full depth pavement milling | S.Y. | 12,760 | $3.65 | $46,574.00 | $2.60 | $33,176.00 | $4.00 | $51,040.00 | $2.95 | $37,642.00 |
| 7 | 1 1/4-inch crushed limestone T.B. base aggregate | TON | 319 | $21.00 | $6,699.00 | $21.00 | $6,699.00 | $24.74 | $7,892.06 | $26.00 | $8,294.00 |
| 8 | 3/4-inch crushed limestone T.B. base aggregate | TON | 91 | $30.00 | $2,730.00 | $30.00 | $2,730.00 | $24.76 | $2,253.16 | $26.00 | $2,366.00 |
| 9 | Excavation below subgrade | C.Y. | 1,105 | $17.80 | $19,669.00 | $17.80 | $19,669.00 | $29.31 | $32,387.55 | $43.75 | $48,343.75 |
| 10 | Excavation below subgrade backfill | TON | 2,210 | $18.90 | $41,769.00 | $18.90 | $41,769.00 | $24.77 | $54,741.70 | $26.85 | $59,338.50 |
| 11 | Geo-grid subgrade stabilization material. | S.Y. | 553 | $6.00 | $3,318.00 | $6.00 | $3,318.00 | $2.48 | $1,371.44 | $9.00 | $4,977.00 |
| 12 | 3 1/4-inch asphaltic concrete binder course | TON | 2,600 | $56.25 | $146,250.00 * | $64.20 | $166,920.00 | $53.50 | $139,100.00 | $65.15 | $169,390.00 |
| 13 | Tack coat | GAL | 900 | $2.70 | $2,430.00 | $3.00 | $2,700.00 | $2.00 | $1,800.00 | $3.00 | $2,700.00 |
| 14 | 1 3/4-inch asphaltic concrete surface course | TON | 1,400 | $69.00 | $96,600.00 | $68.80 | $96,320.00 | $65.00 | $91,000.00 | $70.85 | $99,190.00 |
| 15 | Asphaltic concrete driveway replacement | S.F. | 160 | $10.00 | $1,600.00 | $13.50 | $2,160.00 | $9.77 | $1,563.20 | $16.00 | $2,560.00 |
| 16 | 30-inch concrete curb and gutter replacement | L.F. | 240 | $36.00 | $8,640.00 | $45.50 | $10,920.00 | $51.50 | $12,360.00 | $49.49 | $11,877.60 |
| 17 | 30" HES concrete curb and gutter replacement | L.F. | 266 | $37.00 | $9,842.00 * | $45.50 | $12,103.00 | $52.50 | $13,965.00 | $50.50 | $13,433.00 |
| 18 | Mountable concrete curb and gutter replacement | L.F. | 938 | $36.00 | $33,768.00 * | $45.50 | $42,679.00 | $51.50 | $48,307.00 | $49.49 | $46,421.62 |
| 19 | Topsoil, seed, fertilizer and mulch | S.Y. | 350 | $15.80 | $5,530.00 | $9.80 | $3,430.00 | $9.80 | $3,430.00 | $8.42 | $2,947.00 |
| 20 | Repair Storm Structure 20.2-138 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 21 | Repair Storm Structure 20.2-096 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 22 | Repair Storm Structure 20.2-137 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 23 | Repair Storm Structure 20.2-135 Sawgrass Lane | EA. | 1 | $1,420.00 | $1,420.00 | $1,420.00 | $1,420.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 24 | Repair Storm Structure 20.2-163 Northwest end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 25 | Repair Storm Structure 20.2-162 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 26 | Repair Storm Structure 20.2-126 Northeast end of pond | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 27 | Repair Storm Structure 20.2-164 Sawgrass Lane | EA. | 1 | $820.00 | $820.00 | $820.00 | $820.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 28 | Repair Storm Structure 20.2-125A Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 29 | Repair Storm Structure 20.2-125 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 30 | Repair Storm Structure 20.2-075 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 31 | Repair Storm Structure 20.2-074 Sawgrass Lane | EA. | 1 | $1,390.00 | $1,390.00 | $1,390.00 | $1,390.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |



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## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| 32 | Repair Storm Structure 20.2-073 Sawgrass Lane | EA. | 1 | $1,850.00 | $1,850.00 | $1,850.00 | $1,850.00 | $2,424.00 | $2,424.00 | $1,912.94 | $1,912.94 |
| 33 | Repair Storm Structure 20.2-124 Sawgrass Lane | EA. | 1 | $620.00 | $620.00 | $620.00 | $620.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 34 | Repair Storm Structure 20.2-161 Sawgrass Lane | EA. | 1 | $1,245.00 | $1,245.00 | $1,245.00 | $1,245.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 35 | Repair Sanitary Manhole 20.2 017 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 36 | Repair Sanitary Manhole 20.2 016 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 37 | Repair Sanitary Manhole 20.2 015 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 38 | Repair Sanitary Manhole 20.2 014 Cattail Court | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 39 | Repair Sanitary Manhole 20.2 008 Sawgrass Lane | EA. | 1 | $1,240.00 | $1,240.00 | $1,240.00 | $1,240.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 40 | Repair Sanitary Manhole 20.2 009 Sawgrass Lane | EA. | 1 | $1,770.00 | $1,770.00 | $1,770.00 | $1,770.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 41 | Repair Sanitary Manhole 20.2 012 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 42 | Repair Sanitary Manhole 20.2 013 Intersection of Cattail Court and Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 43 | Repair Sanitary Manhole 20.2 020 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 44 | Repair Sanitary Manhole 20.2 021 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 45 | Repair Sanitary Manhole 20.2 022 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 46 | Repair Sanitary Manhole 20.2 023 Sawgrass Lane | EA. | 1 | $2,150.00 | $2,150.00 | $2,150.00 | $2,150.00 | $1,894.00 | $1,894.00 | $1,912.94 | $1,912.94 |
| 47 | Televised Sewer Pipe Cleaning and Inspection | L.F. | 3,660 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.25 | $26,535.00 | $7.47 | $27,340.20 |
| 48 | 12-inch Diameter CIPP lining | L.F. | 490 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $77.00 | $37,730.00 | $79.33 | $38,871.70 |
| 49 | 15-inch Diameter CIPP lining | L.F. | 908 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $56.00 | $50,848.00 | $57.69 | $52,382.52 |
| 50 | 24-inch Diameter CIPP lining | L.F. | 437 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $126.00 | $55,062.00 | $129.81 | $56,726.97 |
| 51 | 27-inch Diameter CIPP lining | L.F. | 212 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $165.00 | $34,980.00 | $169.98 | $36,035.76 |
| 52 | 24x35-inch Diameter CIPP lining | L.F. | 96 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $195.00 | $18,720.00 | $200.89 | $19,285.44 |
| 53 | 30-inch Diameter CIPP lining | L.F. | 686 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $195.00 | $133,770.00 | $200.89 | $137,810.54 |
| 54 | Remove and Replace 18-inch Storm Sewer from EOP 20.2-161 to MH 20.2-124 | L.F. | 175 | $127.00 | $22,225.00 | $127.00 | $22,225.00 | $100.00 | $17,500.00 | $95.95 | $16,791.25 |
| 55 | Remove and Replace 15-inch Storm Sewer from INL 20.1-035 to MH 20.1-036 | L.F. | 208 | $127.00 | $26,416.00 | $127.00 | $26,416.00 | $84.00 | $17,472.00 | $80.80 | $16,806.40 |
| 56 | Repair Water Valve 20.2 022 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 57 | Repair Water Valve 20.2 020 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 58 | Repair Water Valve 20.2 017 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 59 | Repair Water Valve 20.2 019 | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 60 | Repair Water Valve 20.2 019A | EA. | 1 | $925.00 | $925.00 | $925.00 | $925.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 61 | Repair Water Valve 20.2 013 | EA. | 1 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 62 | Repair Water Valve 20.2-014 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |
| 63 | Repair Water Valve 20.2 021 | EA. | 1 | $1,195.00 | $1,195.00 | $1,195.00 | $1,195.00 | $500.00 | $500.00 | $505.00 | $505.00 |


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Waukesha, WI 53188-1020

## COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 63)** | | | | | **$914,520.00 *** | | **$919,142.75** | | **$949,075.66** | | **$992,459.48** |
| | **Contract B- Northview Road Sidewalk** | | | | | | | | | | |
| 64 | Mobilization | L.S. | 1 | $2,350.00 | $2,350.00 | $2,250.00 | $2,250.00 | $10,000.00 | $10,000.00 | $9,500.00 | $9,500.00 |
| 65 | Traffic Control | L.S. | 1 | $2,150.00 | $2,150.00 | $1,250.00 | $1,250.00 | $3,115.06 | $3,115.06 | $8,000.00 | $8,000.00 |
| 66 | Clearing and Grubbing | L.S. | 1 | $940.00 | $940.00 | $1,000.00 | $1,000.00 | $1,000.00 | $1,000.00 | $802.95 | $802.95 |
| 67 | Tree Removal | I.D. | 15 | $40.00 | $600.00 | $40.00 | $600.00 | $78.64 | $1,179.60 | $107.06 | $1,605.90 |
| 68 | Tree Trimming | L.S. | 1 | $470.00 | $470.00 | $2,000.00 | $2,000.00 | $1,769.40 | $1,769.40 | $2,730.03 | $2,730.03 |
| 69 | Manufactured Ditch Check | EA. | 7 | $65.00 | $455.00 | $60.00 | $420.00 | $60.00 | $420.00 | $86.71 | $606.97 |
| 70 | Full Depth Saw Cut | L.F. | 260 | $2.00 | $520.00 | $2.25 | $585.00 | $4.00 | $1,040.00 | $4.04 | $1,050.40 |
| 71 | 13-inch x 17-inch CMPA in Granular Backfill | L.F. | 12 | $100.00 | $1,200.00 | $100.00 | $1,200.00 | $110.00 | $1,320.00 | $111.10 | $1,333.20 |
| 72 | 13-inch x 17-inch CMPA End Section in granular Backfill | EA. | 1 | $225.00 | $225.00 | $225.00 | $225.00 | $400.00 | $400.00 | $404.00 | $404.00 |
| 73 | 14-inch x 9-inch CMPA in Granular Backfill | L.F. | 37 | $95.00 | $3,515.00 | $95.00 | $3,515.00 | $125.00 | $4,625.00 | $126.25 | $4,671.25 |
| 74 | 14-inch x 9-inch CMPA End Section in Granular Backfill | EA. | 3 | $200.00 | $600.00 | $200.00 | $600.00 | $500.00 | $1,500.00 | $505.00 | $1,515.00 |
| 75 | 15-inch RCP CL III Storm Sewer in Granular Backfill | L.F. | 69 | $75.00 | $5,175.00 | $75.00 | $5,175.00 | $90.00 | $6,210.00 | $90.90 | $6,272.10 |
| 76 | 15-inch RCP End Section in Granular Backfill | EA. | 2 | $695.00 | $1,390.00 | $695.00 | $1,390.00 | $700.00 | $1,400.00 | $707.00 | $1,414.00 |
| 77 | 24-inch x 36-inch Field Inlet | EA. | 1 | $2,215.00 | $2,215.00 | $2,215.00 | $2,215.00 | $3,500.00 | $3,500.00 | $3,535.00 | $3,535.00 |
| 78 | Asphaltic Concrete Driveway Replacement | S.F. | 650 | $6.70 | $4,355.00 | $9.00 | $5,850.00 | $8.08 | $5,252.00 | $10.25 | $6,662.50 |
| 79 | Asphaltic Concrete Pavement | S.Y. | 60 | $76.85 | $4,611.00 | $90.00 | $5,400.00 | $78.61 | $4,716.60 | $105.00 | $6,300.00 |
| 80 | 30-inch Concrete Curb and Gutter | L.F. | 90 | $35.50 | $3,195.00 | $48.50 | $4,365.00 | $39.00 | $3,510.00 | $35.85 | $3,226.50 |
| 81 | Construct Sidewalk to Subgrade | L.S. | 1 | $19,200.00 | $19,200.00 | $6,150.00 | $6,150.00 | $11,177.06 | $11,177.06 | $9,595.00 | $9,595.00 |
| 82 | Excavation Below Subgrade | C.Y. | 30 | $38.60 | $1,158.00 | $25.00 | $750.00 | $45.00 | $1,350.00 | $45.45 | $1,363.50 |
| 83 | Excavation Below Subgrade Backfill | TON | 60 | $33.30 | $1,998.00 | $25.00 | $1,500.00 | $25.00 | $1,500.00 | $25.25 | $1,515.00 |
| 84 | Geogrid Subgrade Stabilization Material | S.Y. | 90 | $7.00 | $630.00 | $5.00 | $450.00 | $5.00 | $450.00 | $5.05 | $454.50 |
| 85 | 3/4-inch Crushed Aggregate Base Course | TON | 200 | $32.75 | $6,550.00 | $20.00 | $4,000.00 | $15.00 | $3,000.00 | $15.15 | $3,030.00 |
| 86 | 6-inch HES Concrete Sidewalk at Driveways | S.F. | 220 | $8.00 | $1,760.00 | $6.00 | $1,320.00 | $8.00 | $1,760.00 | $8.08 | $1,777.60 |
| 87 | Crushed Aggregate Shoulder | L.F. | 150 | $3.20 | $480.00 | $3.00 | $450.00 | $3.00 | $450.00 | $3.03 | $454.50 |
| 88 | Small Rip-Rap | C.Y. | 7 | $150.00 | $1,050.00 | $80.00 | $560.00 | $150.00 | $1,050.00 | $91.81 | $642.67 |
| 89 | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4,840 | $5.75 | $27,830.00 | $5.35 | $25,894.00 | $5.75 | $27,830.00 | $5.81 | $28,120.40 |
| 90 | Detectable Warning Fields | S.F. | 30 | $35.00 | $1,050.00 | $70.00 | $2,100.00 | $35.00 | $1,050.00 | $35.35 | $1,060.50 |
| 91 | 4-inch White Epoxy Pavement Material | L.F. | 90 | $15.00 | $1,350.00 | $20.00 | $1,800.00 | $5.50 | $495.00 | $40.35 | $3,631.50 |
| 92 | Ditching | L.F. | 900 | $6.45 | $5,805.00 | $11.00 | $9,900.00 | $8.00 | $7,200.00 | $95.50 | $85,950.00 |
| 93 | Topsoil, Seed, Fertilizer, Mulch and Erosion Mat | S.Y. | 950 | $6.80 | $6,460.00 | $7.80 | $7,410.00 | $7.80 | $7,410.00 | $8.96 | $8,512.00 |



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# COST COMPARISON OF BIDDERS

**OWNER:** City of Pewaukee
**PROJECT:** Meadowbrook Farms Phase 2 and Northview Road Sidewalk
**BID OPENING DATE:** February 17, 2022

| BASE BID | | | | All-Ways Contractors, Inc. | | Wolf Paving Co., Inc. | | Payne & Dolan, Inc. | | Stark Pavement Corporation | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ITEM # | ITEM DESCRIPTION | UNIT | QTY. | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL | UNIT $ | TOTAL |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 64 - 93)** | | | | | **$109,287.00** | | **$100,324.00** | | **$115,679.72** | | **$205,736.97** |
| **TOTAL OF ALL ESTIMATED PRICES (ITEMS 1 - 93)** | | | | | **$1,023,807.00** | | **$1,019,466.75** | | **$1,064,755.38** | | **$1,198,196.45** |
| **Contract A-Meadowbrook Farms Phase 2-Mandatory Alternate Bid** | | | | | | | | | | | |
| MA-1A | Small Rip-Rap | C.Y. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-2A | 4-inch Concrete Sidewalk and Curb Ramp | S.F. | 4 | $470.00 | $1,880.00 | $470.00 | $1,880.00 | $350.00 | $1,400.00 | $353.50 | $1,414.00 |
| MA-3A | Detectable Warning Fields | S.F. | 4 | $850.00 | $3,400.00 | $850.00 | $3,400.00 | $700.00 | $2,800.00 | $707.00 | $2,828.00 |
| MA-4A | 4-inch White Epoxy Pavement Material | L.F. | 24 | $165.00 | $3,960.00 | $165.00 | $3,960.00 | $800.00 | $19,200.00 | $808.00 | $19,392.00 |
| MA-A5 | Ditching | L.F. | 4 | $1,145.00 | $4,580.00 | $1,145.00 | $4,580.00 | $925.00 | $3,700.00 | $934.25 | $3,737.00 |
| **TOTAL OF ALL MANDATORY ALTERNATE ESTIMATED PRICES** | | | | | **$15,700.00** | | **$15,700.00** | | **$28,500.00** | | **$28,785.00** |
| **TOTAL OF ALL ESTIMATED PRICES** | | | | | **$1,039,507.00** | | **$1,035,166.75** | | **$1,093,255.38** | | **$1,226,981.45** |

Always Contractors
Bid Item 12: Should be $146,250.00, not $146,120.00
Bid Item 17: Should be $9,842.00, not $1,862.00
Bid Item 18: Should be $33,768.00, not $33,696.00
New Total: $914,520.00, not $906,338.00
New Grand Total: $1,023,807, not $1,015,625.00


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# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 7.

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action Regarding Release of the Woodleaf Reserve Phase 5 Grading Only Letter of Credit in the Amount of $701,623.68. [Wagner]

***BACKGROUND:***

The Woodleaf Reserve Phase 5 developer obtained permission to complete grading and filling on the site ahead of the full development approval. As part of this, they posted a letter of credit guaranteeing the work.

The development has now received full approval of the plans and approval of the full developer's agreement and posted a new letter of credit which includes the grading and filling work. Since the grading and filling work is now in the full development agreement and new letter of credit, the previous letter of credit can be released.

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

Council approve the full release of the grading only letter of credit in the amount of $701,623.68.

**ATTACHMENTS:**

Description

Letter of credit

New Letter of credit

New LOC Verification

TriCity National Bank

# IRREVOCABLE STANDBY LETTER OF CREDIT NO. 1725

**Beneficiary:**
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072

**Date:**
November 1, 2021

**Applicant:**
Woodleaf Investments LLC
7900 Durand Ave., Bldg. 10
Mt. Pleasant, WI 53177-1972

**Expiry Date:**
November 1, 2023

**Maximum Amount:**
USD $701,623.68

Dear Sirs:

We hereby authorize you to draw on us for the Account of Woodleaf Investments LLC, up to an aggregate amount of Seven Hundred One Thousand Six Hundred Twenty-Three and 68/100 Dollars ($701,623.68), available by your drafts at sight to be accompanied by:

1.) The original Letter of Credit together with any subsequent amendments.

2.) A statement signed by a person purporting to be an authorized representative of the beneficiary reading: "Sums claimed are due and payable because Woodleaf Investments LLC has not performed its obligations to Beneficiary" pursuant to the Development Agreement between the City of Pewaukee and Woodleaf Investments LLC.

3.) This Letter of Credit is irrevocable and will terminate on the expiration date above, provided however that termination hereof shall not be effective unless, not less than ninety (90) days prior to the expiration date and not more than one hundred-twenty (120) days prior to the expiration date, written notice is delivered to the City of Pewaukee indicating that this Letter of Credit, pursuant to its terms, will expire. If said notice is not given at least ninety (90) days prior to the expiration date or if said notice is given more than one hundred-twenty (120) days prior to the expiration date, this Letter of Credit shall terminate upon ninety (90) days written notice to the City of Pewaukee.

**All drafts must be marked "Drawn under Tri City National Bank Letter of Credit No. 1725, dated November 1, 2021."**

**Special Instructions**:
Partial and multiple drawings are permitted under this Letter of Credit.
All banking charges other than the issuing Bank's are for the Beneficiary's account.

This Letter of Credit may be reduced from time to time as to the extent that the portion of work required under the aforementioned Agreement is completed and paid for, provided, however that no such reduction shall occur until the issuer has received a written statement from the City of Pewaukee. Said statement should set forth the amount of the reduction and the amount of the remaining balance payable under this Credit.

This Letter shall be governed by the laws of the State of Wisconsin.

We agree with you to pay draft(s) drawn under, and in compliance with, the terms of this Letter of Credit if presented to Tri City National Bank, Loan Services Department, 10909 W. Greenfield Avenue, Suite 100, West Allis, WI 53214, together with this Letter of Credit and other required documents, on or before the close of business on November 1, 2023.

Tri City National Bank

By: Diane Rasmussen
Diane Rasmussen, Vice President

TriCity National Bank

**IRREVOCABLE STANDBY LETTER OF CREDIT NO. 1727**

**Beneficiary:**
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072

**Date:**
February 28, 2022

**Applicant:**
Woodleaf Investments LLC
7900 Durand Ave., Bldg. 10
Mt. Pleasant, WI 53177-1972

**Expiry Date:**
February 28, 2024

**Maximum Amount:**
USD $2,112,033.46

Dear Sirs:

We hereby authorize you to draw on us for the Account of Woodleaf Investments LLC, up to an aggregate amount of Two Million One Hundred Twelve Thousand Thirty-Three and 46/100 Dollars ($2,112,033.46), available by your drafts at sight to be accompanied by:

1.) The original Letter of Credit together with any subsequent amendments.

2.) A statement signed by a person purporting to be an authorized representative of the beneficiary reading: "Sums claimed are due and payable because Woodleaf Investments LLC has not performed its obligations to Beneficiary" pursuant to the Development Agreement between the City of Pewaukee and Woodleaf Investments LLC.

3.) This Letter of Credit is irrevocable and will terminate on the expiration date above, provided however that termination hereof shall not be effective unless, not less than ninety (90) days prior to the expiration date and not more than one hundred-twenty (120) days prior to the expiration date, written notice is delivered to the City of Pewaukee indicating that this Letter of Credit, pursuant to its terms, will expire. If said notice is not given at least ninety (90) days prior to the expiration date or if said notice is given more than one hundred-twenty (120) days prior to the expiration date, this Letter of Credit shall terminate upon ninety (90) days written notice to the City of Pewaukee.

**All drafts must be marked "Drawn under Tri City National Bank Letter of Credit No. 1727, dated February 28, 2022."**

**Special Instructions**:
Partial and multiple drawings are permitted under this Letter of Credit.
All banking charges other than the issuing Bank's are for the Beneficiary's account.

This Letter of Credit may be reduced from time to time as to the extent that the portion of work required under the aforementioned Agreement is completed and paid for, provided, however that no such reduction shall occur until the issuer has received a written statement from the City of Pewaukee. Said statement should set forth the amount of the reduction and the amount of the remaining balance payable under this Credit.

This Letter shall be governed by the laws of the State of Wisconsin.

We agree with you to pay draft(s) drawn under, and in compliance with, the terms of this Letter of Credit if presented to Tri City National Bank, Loan Services Department, 10909 W. Greenfield Avenue, Suite 100, West Allis, WI 53214, together with this Letter of Credit and other required documents, on or before the close of business on February 28, 2024.

Tri City National Bank

By: Amanda Szmurlo
Amanda Szmurlo, Assistant Vice President

DocuSign Envelope ID: 90FEA041-15C1-43F9-8232-032D8044A0A6

# WOODLEAF PHASE 5 - UPDATED 10.1.21

**Super Western, Inc**
N59 W14601 Bobolink Avenue
Menomonee Falls, WI 53051
Contact: JOSH REGENT-SMITH
Phone: 262-252-5995
Fax: 262-252-5397

Quote To:

Phone:
Fax:

Job Name:
Date of Plans:
Revision Date:

ALL ITEMS TIED UNLESS A CALL IS MADE TO DISCUSS

| ITEM | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 5 | MOBILIZATION | 1.00 | LS | 55,025.00 | 55,025.00 |
| 10 | TRACKING PAD | 1.00 | EACH | 2,765.00 | 2,765.00 |
| 20 | STRIP TOPSOIL | 21,000.00 | CY | 3.20 | 67,200.00 |
| 30 | CUT/FILL | 33,000.00 | CY | 4.85 | 160,050.00 |
| 40 | HANDLE SEWER SPOIL | 15,000.00 | CY | 3.95 | 59,250.00 |
| 50 | HANDLE BORROW | 48,500.00 | CY | 3.20 | 155,200.00 |
| 60 | SUBGRADE ROAD | 1.00 | LS | 9,962.00 | 9,962.00 |
| 70 | BACKFILL CURB | 1.00 | LS | 4,196.00 | 4,196.00 |
| 80 | SAND FOR POND BOTTOM | 600.00 | CY | 45.25 | 27,150.00 |
| 90 | REPLACE TOPSOIL | 11,000.00 | CY | 3.01 | 33,110.00 |
| | **SUBTOTAL - GRADING PACKAGE** | | | | **$573,908.00** |
| ~~200~~ | ~~SILT FENCE~~ | ~~3,600.00~~ | ~~LF~~ | ~~1.25~~ | ~~4,500.00~~ |
| 205 | **TOPSOIL STOCKPILE** | **1.00** | **LS** | 2,000.00 | 2,000.00 |
| 210 | ORANGE CONSTRUCTION FENCE | 375.00 | LF | 2.00 | 750.00 |
| 220 | DITCH CHECKS | 14.00 | EACH | 100.00 | 1,400.00 |
| 230 | BERM AND SWALE RESTORATION | 3,400.00 | SY | 1.50 | 5,100.00 |
| 240 | INLET PROTECTION | 4.00 | EACH | 175.00 | 700.00 |
| 250 | PERIMETER STRAW LOGS | 1,500.00 | LF | 5.00 | 7,500.00 |
| 260 | E-MAT CLASS I TYPE A | 7,955.00 | SY | 1.50 | 11,932.50 |
| 270 | SEED/FERT/MULCH LOTS | 57,364.00 | SY | 0.50 | 28,682.00 |
| 280 | SEED/FERT/MULCH ROW | 10,375.00 | SY | 0.35 | 3,631.25 |
| 290 | ISLAND RESTORATION | 2.00 | EACH | 1,500.00 | 3,000.00 |
| ~~295~~ | ~~TRM MATTING~~ | ~~295.00~~ | ~~SY~~ | ~~5.00~~ | ~~1,475.00~~ |
| | ~~SUBTOTAL - EROSION CONTROL AND RESTORATION~~ | | | | ~~$70,670.75~~ |
| 300 | 8" SANITARY | 1,605.00 | LF | 155.00 | 248,775.00 |
| 305 | 6" SANITARY LATERALS | 1,318.00 | LF | 135.00 | 177,930.00 |
| 310 | 6" RISERS | 21.00 | VF | 230.00 | 4,830.00 |
| 315 | 48" SANITARY MH | 155.00 | VF | 230.00 | 35,650.00 |
| 320 | 8" WATERMAIN | 1,680.00 | LF | 85.00 | 142,800.00 |

| ITEM | DESCRIPTION | QUANTITY | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| 325 | 8" GV | 7.00 | EACH | 2,000.00 | 14,000.00 |
| 330 | HYDRANT ASSEMBLY | 6.00 | EACH | 5,500.00 | 33,000.00 |
| 335 | 6" HYDRANT LEAD | 82.00 | LF | 90.00 | 7,380.00 |
| 340 | 1.25" PE WS | 1,386.00 | LF | 70.00 | 97,020.00 |
| 345 | 12" RCP STORM | 1,143.00 | LF | 58.00 | 66,294.00 |
| 350 | 24" RCP STORM | 721.00 | LF | 78.00 | 56,238.00 |
| 355 | RCP ENDS | 4.00 | EACH | 1,100.00 | 4,400.00 |
| 360 | CURB INLETS | 25.00 | EACH | 2,385.00 | 59,625.00 |
| 365 | STORM MH | 9.00 | EACH | 2,325.00 | 20,925.00 |
| 370 | 8" PERFORATED PIPE | 240.00 | LF | 70.00 | 16,800.00 |
| | **SUBTOTAL - UTILITY INSTALL** | | | | **$985,667.00** |
| 400 | 5" BASE COURSE - ( 3/4" TB) | 5,700.00 | SY | 4.25 | 24,225.00 |
| 410 | 5" BASE COURSE ( 1.25" TB) | 5,700.00 | SY | 6.50 | 37,050.00 |
| 420 | 30" MOUNTABLE CURB AND GUTTER | 3,765.00 | LF | 15.45 | 58,169.25 |
| 430 | ASPHALT BINDER | 5,700.00 | SY | 11.80 | 67,260.00 |
| 440 | 30 VF CURB AND GUTTER AT ISLANDS | 635.00 | LF | 22.00 | 13,970.00 |
| 450 | ASPHALT SURFACE COURSE | 5,700.00 | SY | 7.00 | 39,900.00 |
| 460 | INTERIM INLET | 25.00 | EACH | 1,000.00 | 25,000.00 |
| 470 | ASPHALT WEDGE REMOVAL | 1.00 | LS | 7,200.00 | 7,200.00 |
| | **SUBTOTAL - ASPHALT AND CURB** | | | | **$272,774.25** |
| 800 | UNDERCUT ALLOWANCE | 1.00 | LS | 23,000.00 | 23,000.00 |
| 810 | CLEANUP AFTER UTILTIES | 1.00 | LS | 6,130.00 | 6,130.00 |
| ~~820~~ | ~~ALLOWANCE FOR PEWAUKEE EROSION CONTROL~~ | ~~1.00~~ | ~~LS~~ | ~~20,000.00~~ | ~~20,000.00~~ |
| | **SUBTOTAL - ALLOWANCE** | | | $29,130. | ~~$49,130.00~~ |
| **GRAND TOTAL** | | | | $1,861,479.25 | ~~$1,952,150.00~~ |

JAB

**NOTES:**

TOPSOIL SALE WILL BE HANDLED BY SUPER WESTERN AT COMPLETION OF PROJECT. OWNER WILL RECEIVE A CREDIT EQUAL TO THE REVENUE RECEIVED FOR THE SALE OF THE TOPSOIL.

HIGHLIGHTED ITEMS ~~WILL NEED TO BE~~ REMOVED FROM CONTRACT AND HANDLED BY OWNER. ARE HEREBY

NO BOND INCLUDED.

EARTHWORK CALCULATIONS ATTACHED.

EROSION CONTROL PACKAGE ~~CAN BE~~ SUBSTITUTED BY OWNER, ~~BUT OWNER WOULD HAVE TO~~ HOLD CONTRACT AND PAYMENT ~~FOR WHO THEY CHOOSE.~~ WAS BEEN WILL

BORROW FIGURED TO DUMPED AND PLACED, NOT STOCKPILED

JAB

NO BOND INCLUDED.

PROPOSAL BASED OFF PLANS DATED 8/9-21

ASPHALT SURFACE NUMBER EXPECTED TO BE INSTALLED IN 2023 AND IS CONSIDERRED BUDGETARY DUE TO VOLITILITY OF OIL MARKET

V Super Western Shall Remove all Erosion Control at No cost To Owner.

DocuSign

## Certificate Of Completion

Envelope Id: 90FEA04115C143F98232032D8044A0A6
Subject: Please DocuSign: Woodleaf V Super Wester Contract
Source Envelope:
Document Pages: 11
Certificate Pages: 5
AutoNav: Enabled
EnvelopeId Stamping: Enabled
Time Zone: (UTC-06:00) Central Time (US & Canada)

Signatures: 2
Initials: 0

Status: Completed

Envelope Originator:
Daniel Scardino
19000 W Bluemound Rd
Brookfield, WI 53045
ds@pointre.com
IP Address: 12.18.237.74

## Record Tracking

Status: Original
10/19/2021 4:50:13 PM

Holder: Daniel Scardino
ds@pointre.com

Location: DocuSign

| Signer Events | Signature | Timestamp |
|---|---|---|
| Mike Kaerek<br>mikekaerek@kaerekhomes.com<br>Member<br>Security Level: Email, Account Authentication (None) | DocuSigned by:<br>Mike Kaerek<br>Signature Adoption: Pre-selected Style<br>Using IP Address: 98.100.202.170 | Sent: 10/19/2021 4:52:54 PM<br>Viewed: 10/19/2021 4:54:35 PM<br>Signed: 10/19/2021 4:54:52 PM |
| **Electronic Record and Signature Disclosure:**<br>Accepted: 12/9/2016 10:56:13 AM<br>ID: 3069773b-777e-4fea-a0f7-03c0be730cbb | | |
| Wolf Korndoerfer<br>wolfk@korndoerferhomes.com<br>Vice President<br>Korndoerfer Homes<br>Security Level: Email, Account Authentication (None) | DocuSigned by:<br>Wolf Korndoerfer<br>Signature Adoption: Pre-selected Style<br>Using IP Address: 98.144.151.75 | Sent: 10/19/2021 4:52:54 PM<br>Viewed: 10/26/2021 11:21:00 AM<br>Signed: 10/26/2021 11:21:24 AM |
| **Electronic Record and Signature Disclosure:**<br>Accepted: 10/26/2014 9:14:04 AM<br>ID: 4be8c3d9-8d03-4eb4-9199-5a16bbf4d9dc | | |
| **In Person Signer Events** | **Signature** | **Timestamp** |
| **Editor Delivery Events** | **Status** | **Timestamp** |
| **Agent Delivery Events** | **Status** | **Timestamp** |
| **Intermediary Delivery Events** | **Status** | **Timestamp** |
| **Certified Delivery Events** | **Status** | **Timestamp** |
| **Carbon Copy Events** | **Status** | **Timestamp** |
| Joseph A Bukovich<br>jb@pointre.com<br>Security Level: Email, Account Authentication (None) | COPIED | Sent: 10/19/2021 4:52:54 PM |
| **Electronic Record and Signature Disclosure:**<br>Accepted: 10/19/2021 1:38:52 PM<br>ID: ebb877bd-3800-42fa-8325-0dc27f895e99 | | |
| **Witness Events** | **Signature** | **Timestamp** |

DocuSign Envelope ID: 6FDFBF96-2243-4284-B7D0-C776F07F839A

BLAZE LANDSCAPE CONTRACTING, INC.
W180 N5325 MARCY ROAD
MENOMONEE FALLS, WI 53051
262-252-3188 OFC
262-252-4358 FAX
SALES@BLAZELANDSCAPE.COM

JOB PROPOSAL

10/7/2021

SUBMITTED TO:
WOODLEAF INVESTMENTS LLC
% JOE BUKOVISH
19000 W BLUEMOUND ROAD
BROOKFIELD, WI 53045

JOB LOCATION:

WOODLEAF RESERVE
PHASE V

We hereby submit specifications and estimates for landscaping to include:

- Silt Fence Installed @ $1.25/l.f. Approximately 3,600 l.f.—Cost $4,500
- Orange Construction Fence Installed @ $2/l.f. Approximately 400 l.f.—Cost $800
- Straw Wattles Ditch Checks Installed @ $5/l.f. Approximately 280 l.f.—Cost $1,400
- Perimeter Straw Logs 1,500 l.f. @ $5/l.f.—Cost $7,500
- Inlet Protections Installed @ $175 Each; Approximately (4). —Cost $700
- Berm & Swale Restoration—Seed, Fertilize, & Fabric—Approximately 3,400 sq.yds. @ $1.50/sq.yd.—Cost $5,100
- Seed, Fertilize, & NA Green S75BN @ $1.50/sq.yd. Approximately 7,955 sq.yds. —Cost $11,932.50
- Seed, Fertilize, & NA Green C350 @ $5/sq.yd. Approximately 300 sq.yds. —Cost $1,500
- Seed, Fertilize, & Mulch Lots 57,364 sq.yds. @ $0.50/sq.yd.—Cost $28,682
  - Winter Stabilization—Seed, Fertilize, & Flexterra (Winter Tack) 57,364 sq.yds. @ $0.95/sq.yd.—Cost $54,495.80
- Seed, Fertilize, & Mulch ROW Approximately 10,375 sq.yds. @ $0.35/sq.yd.—Cost $3,631.25
  - Winter Stabilization—Seed, Fertilize, & Flexterra (Winter Tack) 57,364 sq.yds. @ $0.95/sq.yd.—Cost $9,856.25
- Temp Seed Stockpiles @ $1,200 Each (2)—Cost $2,400
- Island Restoration (2) @ $1,500 Each. —Cost $3,000
  - Winter Stabilization Seed, Fertilize, & Flexterra (Winter Tack) @ $3,000 Each. —Cost $6,000
- Pewaukee Erosion Control Allowance. —$20,000
- ~~Erosion Control Removal. —Cost $3,500~~

JAB

* TOTAL CONTRACT WITHOUT WINTER CHARGES: $71,145.75
* STABILIZATION AND EROSION CONTROL WORK PERFORMED DURING THE WINTER MONTHS SHALL BE INVOICED AT THE WINTER STABILIZATION FIXED PRICE LISTED ABOVE FOR THE ACTUAL WORK PERFORMED ON A UNIT COST BASIS.

OK

We hereby propose to furnish labor and materials in accordance with the above specifications. The above prices do not include state sales, which will be added to billing invoice. Payment draws to be made for work completed. Billing completed on quantity installed.

Submitted By:
Blaze Selestow
Blaze Landscape Contracting, Inc.
10/7/2021

Accepted By:

DocuSigned by:
Wolf Korndoerfer 10/26/2021
Signature Date
WOLF KORNDOERFER, CO-MANAGING MEMBER

DocuSigned by:
Mike Kazek 10/23/2021
MICHAEL J. KAZEK, CO-MANAGING MEMBER DATE

PLEASE SIGN AND RETURE ONE COPY TO OUR OFFICE; KEEP THE OTHERS FOR YOUR RECORDS.

# PPLICATION AND CERTIFICATE FOR PAYMENT

Invoice #: 2021222-1

Owner: Woodleaf Investments LLC | Project: 21.02.022 Woodleaf Phase 5 | Application No.: 1 | Distribution to: Owner, Architect, Contractor

Period To: 1/28/2022

om Contractor: Super Western361
N59W14601 Bobolink Ave.
Menomonee Falls, WI 53051

Via Architect:

Project Nos:

ntract For:

Contract Date:

## ONTRACTOR'S APPLICATION FOR PAYMENT

pplication is made for payment, as shown below, in connection with the Contract
ontinuation Sheet is attached.

| | | |
|---|---|---|
| 1. Original Contract Sum | | $1,861,479.25 |
| 2. Net Change By Change Order | | $0.00 |
| 3. Contract Sum To Date | | $1,861,479.25 |
| 4. Total Completed and Stored To Date | | $176,707.50 |
| 5. Retainage: | | |
| a. 5.00% of Completed Work | $8,835.38 | |
| b. 0.00% of Stored Material | $0.00 | |
| Total Retainage | | $8,835.38 |
| 6. Total Earned Less Retainage | | $167,872.12 |
| 7. Less Previous Certificates For Payments | | $0.00 |
| 8. Current Payment Due | | $167,872.12 |
| 9. Balance To Finish, Plus Retainage | | $1,693,607.13 |

| CHANGE ORDER SUMMARY | Additions | Deductions |
|---|---|---|
| Total changes approved in previous months by Owner | $0.00 | $0.00 |
| Total Approved this Month | $0.00 | $0.00 |
| TOTALS | $0.00 | $0.00 |
| Net Changes By Change Order | **$0.00** | |

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information, and belief, the work covered by this Application for Payment has been completed in accordance with the Contract Documents. That all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: Super Western361

By: _____ Date: 2/1/22

State of: Wisconsin County of: Waukesha
Subscribed and sworn to before me this 1st day of February
Notary Public: Mary Ellen Klaver
My Commission expires: 9/5/2025

MARY ELLEN KLAVER NOTARY PUBLIC STATE OF WISCONSIN

### ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information, and belief, the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED $ 167,872.12

*(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)*

ARCHITECT:

By: Joseph A. Bukovac Date: 2/8/22

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment, and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

# CONTINUATION SHEET



pplication and Certification for Payment, containing
ontractor's signed certification is attached.
tabulations below, amounts are stated to the nearest dollar.
se Column I on Contracts where variable retainage for line items may apply.

Application No. : 1
Application Date : 01/28/22
To: 01/28/22
Architect's Project No.:

nvoice # : 2021222-1 Contract : 2102.022 Woodleaf Phase 5

| A | B | C | D | E | F | G | | H | I |
|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description of Work | Scheduled Value | Work Completed | | Materials Presently Stored | Total Completed and Stored To Date | % (G / C) | Balance To Finish (C-G) | Retainage |
| | | | From Previous Application (D+E) | This Period In Place | (Not in D or E) | (D+E+F) | | | |
| 5 | Mobilization | 55,025.00 | 0.00 | 27,512.50 | 0.00 | 27,512.50 | 50.00% | 27,512.50 | |
| 10 | Tracking Pad | 2,765.00 | 0.00 | 2,765.00 | 0.00 | 2,765.00 | 100.00% | 0.00 | |
| 20 | Strip Topsoil | 67,200.00 | 0.00 | 50,400.00 | 0.00 | 50,400.00 | 75.00% | 16,800.00 | |
| 30 | Cut/Fill | 160,050.00 | 0.00 | 96,030.00 | 0.00 | 96,030.00 | 60.00% | 64,020.00 | |
| 40 | Handle Sewer Spoil | 59,250.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 59,250.00 | |
| 50 | Handle Borrow | 155,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 155,200.00 | |
| 60 | Subgrade Road | 9,962.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 9,962.00 | |
| 70 | Backfill Curb | 4,196.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 4,196.00 | |
| 80 | Sand for Pond Bottom | 27,150.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 27,150.00 | |
| 90 | Replace Topsoil | 33,110.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 33,110.00 | |
| 300 | 8" Sanitary | 248,775.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 248,775.00 | |
| 305 | 6" Sanitary Lateral | 177,930.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 177,930.00 | |
| 310 | 6" Risers | 4,830.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 4,830.00 | |
| 315 | 48" Sanitary MH | 35,650.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 35,650.00 | |
| 320 | 8" Watermain | 142,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 142,800.00 | |
| 325 | 8" Gate Valve | 14,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 14,000.00 | |
| 330 | Hydrant Assembly | 33,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 33,000.00 | |
| 335 | 6" Hydrant Lead | 7,380.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 7,380.00 | |
| 340 | 1.25" PE WS | 97,020.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 97,020.00 | |
| 345 | 12" RCP Storm | 66,294.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 66,294.00 | |
| 350 | 24" RCP Storm | 56,238.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 56,238.00 | |
| 355 | RCP Ends | 4,400.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 4,400.00 | |
| 360 | Curb Inlets | 59,625.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 59,625.00 | |
| 365 | Storm Manhole | 20,925.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 20,925.00 | |
| 370 | 8" Perforated Pipe | 16,800.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 16,800.00 | |
| 400 | 5" Base Course (3/4" TB) | 24,225.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 24,225.00 | |
| 410 | 5" Base Course (1.25" TB) | 37,050.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 37,050.00 | |
| 420 | 30" Mountable Curb and Gutter | 58,169.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 58,169.25 | |
| 430 | Asphalt Binder | 67,260.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 67,260.00 | |
| 440 | 30VF Curb and Gutter Islands | 13,970.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 13,970.00 | |
| 450 | Asphalt Surface Course | 39,900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 39,900.00 | |
| 460 | Interim Inlet | 25,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 25,000.00 | |

# CONTINUATION SHEET



**Application and Certification for Payment**, containing
Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

**Application No. :** 1
**Application Date :** 01/28/22
**To:** 01/28/22
**Architect's Project No.:**

**Invoice # :** 2021222-1 **Contract :** 21.02.022 Woodleaf Phase 5

| A | B | C | D | E | F | G | | H | I |
|---|---|---|---|---|---|---|---|---|---|
| Item No. | Description of Work | Scheduled Value | Work Completed | | Materials Presently Stored | Total Completed and Stored To Date | % (G / C) | Balance To Finish (C-G) | Retainage |
| | | | From Previous Application (D+E) | This Period In Place | (Not in D or E) | (D+E+F) | | | |
| 470 | Asphalt Wedge Removal | 7,200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 7,200.00 | |
| 800 | Undercut Allowance | 23,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 23,000.00 | |
| 810 | Cleanup After Utilities | 6,130.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% | 6,130.00 | |

SUPER WESTERN, INC.

An Equal Opportunity Employer

# PARTIAL WAIVER OF LIEN

February 7, 2022

**For value received,** I/we hereby waive all rights and claims for lien on land and on buildings about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

for: Woodleaf Investments LLC (Owner),

by: Super Western, Inc (Contractor),

for: Labor, equipment, and/or materials

same being situated in Waukesha County, State of Wisconsin, described as:

Woodleaf Reserve Phase 5

SWI #21-02-022

for all labor performed, and for all material furnished for the erection, construction, alteration or repair of said buildings and appurtenance of $167,872.12 upon receipt of the same.

Mary Ellen Kaiser

Super Western, Inc

**BLAZE LANDSCAPE CONTRACTING INC**
W180N5325 Marcy Rd
Menomonee Falls, WI 53051 US
+1 2622523188
SALES@BLAZELANDSCAPE.COM
www.blazelandscape.com

# Invoice

| BILL TO | SHIP TO |
|---|---|
| WOODLEAF INVESTMENTS LLC.<br>% JOE BUKOVISH<br>19000 W BLUEMOUND ROAD<br>BROOKFIELD, WI 53045 | WOODLEAF INVESTMENTS LLC.<br>% JOE BUKOVISH<br>19000 W BLUEMOUND ROAD<br>BROOKFIELD, WI 53045 |

| INVOICE # | DATE | TOTAL DUE | DUE DATE | TERMS | ENCLOSED |
|---|---|---|---|---|---|
| 16580 | 12/09/2021 | $4,725.00 | 01/08/2022 | Net 30 | |

| DESCRIPTION | QTY | RATE | AMOUNT |
|---|---|---|---|
| SILT FENCE INSTALLED. | 1 | 4,500.00 | 4,500.00T |

THANK YOU FOR YOUR BUSINESS!

| | |
|---|---|
| SUBTOTAL | 4,500.00 |
| TAX (5%) | 225.00 |
| TOTAL | 4,725.00 |
| BALANCE DUE | $4,725.00 |

ok
JAB ✓
12/23/21
WOODLEAF II EROSION CONTROL.

ACCEPTED PAYMENT METHODS: CASH, CHECK, ONLINE PAYMENT THROUGH QUICKBOOKS.

BLAZE LANDSCAPE CONTRACTING, INC. DOES NOT ACCEPT ACH OR CREDIT CARD PAYMENTS, OR WIRE TRANSFERS AT THIS TIME.



PLEASE CALL OUR OFFICE AT 262-252-3188, OPT. 4 IF YOU HAVE ANY PAYMENT QUESTIONS!

# WAIVER OF LIEN

.....12/21/2021.....

**For value received,** we hereby waive all rights and claims for lien on land and on buildings about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto,

for ..... **WOODLEAF INVESTMENTS LLC**..... (Owner) ,

by .....Blaze Landscape Contracting, Inc.....(Subcontractor) ,

for .....EROSION CONTRO INV#16580.....,

same being situated in ..**Waukesha**.. County, State of Wisconsin, described as:

.....**WOODLEAF RESERVE PHASE V**.....

for all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances, and none other.

.....

... Blaze Landscape Contracting, Inc.....

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 8.

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner/Scott Klein

***SUBJECT:***

Discussion and Possible Action Regarding the Lindsay Road/Redford Boulevard Pedestrian Crossing. [Klein]

***BACKGROUND:***

Attached are Common Council meeting agenda and minutes where the Lindsay/Redford Intersection was discussed.

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

**ATTACHMENTS:**

Description

8.19.19 CC Agenda
8.19.2019 CC minutes
3.2.2020 CC Agenda
6.15.2020 CC Agenda
6.15.2020 CC Minutes
8.3.2020 CC Agenda
8.3.2020 CC Minutes
3.15.2021 CC Agenda
3.15.2021 CC Minutes
4.5.2021 CC Agenda
4.5.2021 CC Minutes
6.7.2021 CC Agenda
6.7.2021 CC minutes
County City Agreement
City Letter of Support for RCUT HSIP Funding
City request for Pedestrian Crossing

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 7.

**DATE:** August 19, 2019

**DEPARTMENT:** PW - Engineering

**PROVIDED BY:** Jeffrey Weigel, PE Public Works Director

***SUBJECT:***

Discussion and Possible Action to Authorize and Pay for the Intersection Safety Study of Lindsay Road and CTH F (Redford Blvd.) as a Part of Their Overall Intersection Safety Study this Year [Weigel]

***BACKGROUND:***

Over the past several years, citizens and Alderpersons have asked us to investigate installing traffic signals in the CTH F & Lindsay Road intersection. I was recently asked by a representative of the Victoria Station homeowners association how to start the process to get signals in the intersection, and I said it has been discussed over the years but not followed through. I suggested contacting the Alderpersons representing the district as well as the Waukesha County Supervisor for the district, both of whom would be important for support at their respective agencies. County Supervisor Swan contacted Waukesha County DPW, and found that similar safety studies were underway in other County intersections. Amdinistratively, the County could add our request as an addendum to their current study agreement, and I indicated that I thought Pewaukee would be willing to fund this additional study work ($4,984.00). If the Council were to authorize this funding this year, the work would be completed by the end of fall, 2019.

***FINANCIAL IMPACT:***

We do not have any account specific to traffic studies in the current budget. The Council could authorize us to "overspend" our Outside Engineering account or approve funding from another source, such as the Contingency account.

The Outside Engineering account is always a guess at budget time, essentially consisting of Engineering Consultant Fees associated with development review (paid by developers) and the rare non-development engineering function not associated with a capital project (bridge inspections). By using the tem "Overspending" the account, I am simply saying that in October 2018, I guessed that we would be spending about $35,000 on Outside Engineering, not including $5,000 for this intersection study. As of 7/31/19 we have charged only about $5,000 of the $35,000 budgeted in this account and it is unknown, even as of August 2019, what developments will get under construction this year--the two major ones are the Swan View Farms Estates and The Glen at Parkway Ridge.

***RECOMMENDED MOTION:***

Common Council authorizes the City of Pewaukee to have Waukesha County include the safety analysis of the CTH F & Lindsay Road Intersection as part of their 2019 safety analysis at a cost to the City of $5,000 to be paid out of the Engineering "Outside Engineering" account.

**ATTACHMENTS:**

Description

# AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is entered into between **Waukesha County** (Client) and **Traffic Analysis & Design, Inc.** (Engineer), based upon Client's intention to conduct a traffic study at the intersection of CTH L & Lindsay Road in Waukesha County, Wisconsin (the Project) and Client's requirement for certain engineering services in connection with the Project (the Services) which Engineer is prepared to provide.

1. Engineer shall provide the Services described in Attachment A, "Scope of Services", according to Attachment A, "Schedule".

2. Client shall pay Engineer in accordance with Attachment A, "Compensation". Invoices shall be due and payable upon receipt. Invoice amounts not paid within 30 days after receipt shall accrue interest at the rate of 1.5% per month (or the maximum rate permitted by law, if less), with payments applied first to accrued interest and then to unpaid principal.

3. The same degree of care, skill, and diligence shall be exercised in the performance of the Services as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances. No other warranty, express or implied, is included in this Agreement or in any drawing, specification, report, opinion, or other instrument of service, in any form or media, produced in connection with the Services.

4. Engineer shall not be liable to Client for any consequential damages resulting in any way from the performance of the Services. To the fullest extent permitted by law, Engineer's liability under this Agreement shall not exceed Engineer's total compensation actually received under this Agreement.

5. Engineer and Client waive all rights against each other for damages covered by property insurance during and after the completion of the Services.

6. Not withstanding anything to the contrary in any Attachments hereto, Engineer has no responsibility for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; or (b) the failure of any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to Client or to comply with federal, state, or local laws, regulations, and codes.

7. Engineer does not guarantee that proposals, bids, or actual Project costs will not vary from Engineer's cost estimates or that actual schedules will not vary from Engineer's projected schedules.

8. This Agreement may be terminated upon written notice at Client's convenience or by either party in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. Engineer shall terminate performance of Services on a schedule acceptable to Client, and Client shall pay Engineer for all Services performed and reasonable termination expenses. Paragraphs 4 and 5 shall survive any termination or completion of this Agreement.

9. All documents prepared by Engineer pursuant to this Agreement are instruments of service in respect to the Project. Any use except for the specific purpose intended by this Agreement will be at the user's sole risk and without liability or legal exposure to Engineer. Engineer shall retain its ownership in its data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the Services shall remain the property of Engineer.

10. The Services provided for in this Agreement are for the sole use and benefit of Client and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Client and Engineer.

11. Any notice required by this Agreement shall be made in writing to the address specified below:

**Client**: Waukesha County
515 W Moreland Blvd • AC 220
Waukesha WI 53188
**Attn**: Carolynn Gellings, PE, Engineering Services Manager

**Engineer**: Traffic Analysis & Design, Inc.
N36 W7505 Buchanan Street
Cedarburg, WI 53012
**Attn**: John A. Bieberitz, P.E., PTOE

IN WITNESS WHEREOF, Client and Engineer have executed this Agreement, effective as of August 6, 2019.

**Waukesha County (Client)**

By:_____

Title: _____

Date: _____

**Traffic Analysis & Design, Inc. (Engineer)**

By: _____
John A. Bieberitz, P.E., PTOE

Date: 8/6/19

# ATTACHMENT A

## SCOPE OF SERVICES

Engineer will conduct a traffic study at the intersection of County Trunk Highway (CTH) F and Lindsay Road consisting of traffic counts, traffic operations analysis, traffic signal warrant analysis, crash analysis, and a memorandum documenting the findings and recommendations. Each element of the scope is outlined below.

### Task 1 – Data Collection

Engineer will collect traffic turning movement counts at the CTH F and Lindsay Road intersection on a typical weekday from 6 AM to 7 PM. The traffic turning movement counts will be conducted to WisDOT standards with cars, trucks, busses, bikes and pedestrians counted separately per movement in 15-minute intervals. Engineer will collect a photo log, intersection geometric data, and turn bay lengths. The Engineer will compile the traffic count data and geometric data for a base map for the traffic analysis.

### Task 2 – Traffic Operations Analysis

Engineer will conduct an intersection operational analysis for the weekday AM and PM peak hours for the CTH F and Lindsay Road intersection for the following scenarios:

- Existing (2019) conditions with two-way-stop-control
- Existing (2019) conditions with traffic signal

Engineer will make recommendations such as turn bay length extensions, additional turn lanes, channelization, traffic control modifications and other improvements required to provide LOS 'D' or better for all traffic movements.

Engineer will conduct a traffic signal warrant analysis for the existing conditions and compare that data to the traffic signal warrant thresholds in the Manual of Uniform Traffic Control Devices (MUTCD) and the WisDOT left turn conflict analysis to determine if a traffic signal is warranted. All traffic volume warrants will be evaluated except for the School Crossing Warrant.

### Task 3 – Crash Analysis

Engineer will plot the past five years (2014-2018) of crashes at the CTH F and Lindsay Road intersection. Engineer will review the crash patterns identified in the crash plots and identify potential safety improvement options, including changing the traffic control of the intersection from side-stop control to traffic signal control. Engineer will utilize the crash data to determine the

"Economic Loss" at the intersection due to crashes. Engineer will utilize the crash data, economic loss and potential recommended improvements to determine if the CTH F and Lindsay Road would meet the requirements for HSIP funding.

### Task 4 – Report

Engineer will prepare a technical memorandum summarizing the findings of the analysis and recommendations for the next steps.

## ADDITIONAL WORK

In-person meetings are not included in the scope of work and would require an amendment.

## SCHEDULE

Engineer will complete the traffic study within three weeks of authorization, or sooner if possible.

## COMPENSATION

Compensation for the services described above, CLIENT shall pay Engineer a lump sum fee of Four Thousand Nine Hundred and Eighty-Four Dollars ($4,984.00).

All services not cited in Attachment A, Scope of Services, will be conducted as additional services under an Amendment to this Agreement.

5. Discussion and Possible Action to Authorize the Well #5 Radium Filtration Treatment Design, Equipment Replacement, and Building Addition, and to Re-Program Water/Sewer Capital Plan Accordingly

Mr. Weigel stated Well #5 has had radium type issues that were going to be addressed. He said radium levels vary from time to time and the City's well drifted back into compliance. Mr. Weigel reported it is now drifting out of compliance again. He recommended going through the design process to get a treatment plan in place before the orders are issued from the State again. Mr. Weigel stated $50,000 was placed in the 2019 budget, but he said he received a proposal for this preliminary design, design,and the bidding process in the amount of $215,000. He said he estimates the actual project would cost $2 million. He said he was looking for the Council's authorization to allow him to reprogram funds to move forward with the design and bid process. He assured the Council they would have the ability to either approve the actual project or turn it down.

**A motion was made and seconded, (J. Kara, B. Dziwulski) to authorize the preliminary design study and design bidding services at the cost $215,000 and authorize the reprograming of funds.** Motion Passed: 5-For, 0-Against.

6. Discussion and Possible Action to Allow the Property Located at N32 W22198 Shady Lane (PWC 0912-053) to Connect to the Sanitary Sewer in Hill 'n Dale Circle South Via Easement Across an Adjacent Parcel

Mr. Weigel stated Shady Lane and Shady Nook do not have sewer and water service. He said he received a request from the Zabel family to connect to the sewer. He said they own two lots, one on Shady Lane where their house is, and a vacant lot on the Hill N Dale Circle where the sewer could be accessed. Mr. Weigel stated there are several costs associated with the connection, some of which are the levied reserved capacity assessment and the Hill N Dale interceptor capacity assessment.

**A motion was made and seconded, (B. Dziwulski, C. Brown) to authorize the City Attorney to draft a sewer connection agreement for the Zabels similar to the 1997 Brouwer agreement and authorize the Mayor and Clerk to execute the agreement contingent upon the approval of the final form of the agreement by the City Attorney and City Engineer.**
Motion Passed: 5-For, 0-Against.

7. Discussion and Possible Action to Authorize and Pay for the Intersection Safety Study of Lindsay Road and CTH F (Redford Blvd.) as a Part of Their Overall Intersection Safety Study this Year

Mr. Weigel stated a representative from the Victoria Station Home Owners Association contacted him asking him to revisit signals in this area. He said he referred him to his district Alderman and County Supervisor Swan. Mr. Weigel stated Supervisor Swan spoke to the County and said they could do the study in the next month or two for $5,000. He suggested the funds could either come out of the contingency fund or the outside engineering account.

**A motion was made and seconded (J. Wamser, R. Grosch) to authorize the study to be paid for from the outside engineering account**. There was additional discussion.
Motion Passed: 5-For, 0-Against.

8. Discussion and Possible Action Regarding **Ordinance 19-21** Rezoning the Property Located at N40 W27535 Glacier Road (PWC 0890-999-002) From Rs-2 Single-Family Residential District To Rs-3 Single-Family Residential District and the Property Bearing Tax Key No. PWC 0890-999-007

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 4.

**DATE:** March 2, 2020

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Presentation of Lindsay Road and Redford Boulevard (CTH F) Intersection Study [Wagner / Traffic Analysis and Design, Inc.]

***BACKGROUND:***

Previously, the Common Council authorized the City to fund an intersection study of Lindsay Road and Redford Boulevard (CTH F) being completed on our behalf by Waukesha County. The study was completed and a draft report provided to the City in November of 2019. See the study attached. Also in November, the Consultant, along with Waukesha County Staff, presented the Study results to City Staff.

On Monday, February 17, 2020, there was another severe accident at this intersection. Waukesha County, the Sheriff's Department, and the Engineering office received follow up phone calls regarding this accident and the status of the intersection study prompting Staff to bring the presentation to the City Common Council. See the attached Study of the Intersection.

The Consultant, Traffic Analysis and Design Inc., will present the attached Power Point Presentation at the meeting. This is a summary of the study mentioned above and he will be able to answer any questions related to the Study and the warrants for intersection improvements according to Federal and State guidelines.

Within the Study, the Consultant recommended an operation analysis of the intersection to ensure an RCUT intersection would work at this intersection. We requested the cost to complete this analysis from the Consultant which is outlined in the attached Agreement. This will review the current conditions and forecast conditions of this intersection to review the design impacts to the intersection as a two-way stop control (current condition) and as an RCUT intersection (recommended design).

In discussions with Waukesha County, they have been supportive, but lack the funding for this project. In addition, since the warrants are not met for any improvements to this intersection, the CTH F function (conveying a large volume of traffic safely in a north/south direction) is met, and alternative access points are located nearby, funding is not likely to be a high priority for this intersection within the County's budget.

***FINANCIAL IMPACT:***

There is currently no funds budgeted in 2020 for design or construction improvements for this intersection in the City budget nor in the County budget.

In discussions with Waukesha County, their budget programming typically has a 3-5 year window. In addition, the

project would likely include a substantial partnership with the City to assist in the funding of the project.

If the operation analysis by Traffic Analysis & Design, Inc. is authorized, $2000 will need to be re-allocated to allow for this study. It is recommended these funds be re-allocated from the Roundy's Industrial Park Road project previously authorized to be delayed to 2021.

***RECOMMENDED MOTION:***

Authorize the Director of Public Works and City Administrator, if desired, to begin discussions with Waukesha County regarding final design of the intersection improvements and establishing funding or other partnership agreements for the intersection improvements .

Authorize Traffic Analysis & Design, Inc. to complete an operation analysis for a reduced-conflict-u-turn (RCUT) configuration in the amount not to exceed $2000 with funds re-allocated from the previously delayed Roundy's Industrial Park Road project.

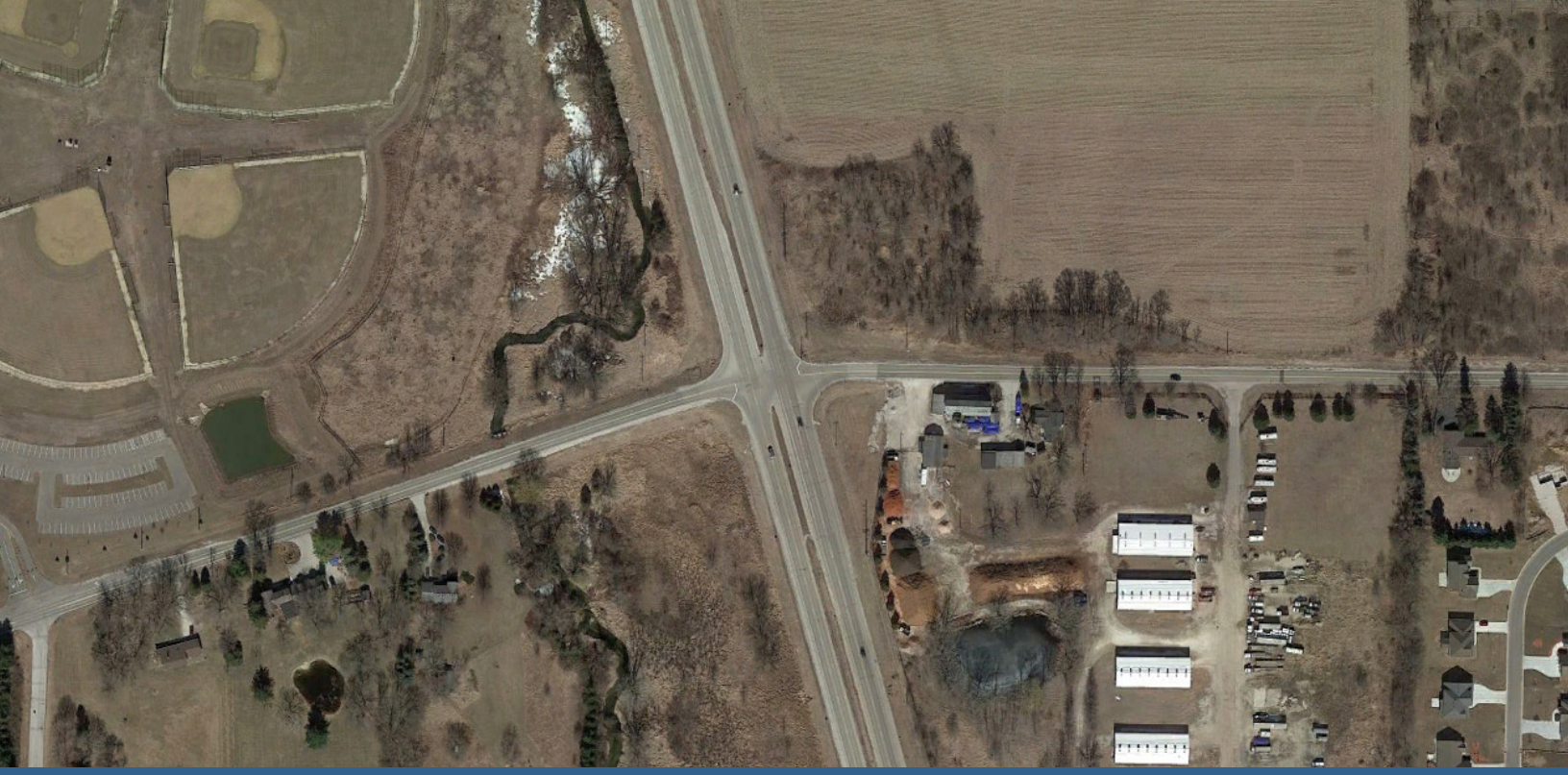
**ATTACHMENTS:**

Description

Lindsay/Redford Intersection Study

Study presentation

Intersection Analysis Agreement



# TRAFFIC AND SAFETY INTERSECTION ANALYSIS
# CTH F AT LINDSAY ROAD

YEARS 2014 - 2019
DATE SUBMITTED: NOVEMBER 7, 2019

**PREPARED FOR:**
Carolynn Gellings, P.E.
Engineering Services Manager, Waukesha County

Jeffrey Weigel, P.E.
Public Works Director, City of Pewaukee

**PREPARED BY:**
Traffic Analysis and Design, Inc. (TADI)
P.O. Box 128
Cedarburg, WI 53012
Authors: John Campbell, P.E., RSP1
Christian R. Sternke, P.E., RSP1
Phone: (800) 605-3091

TRAFFIC ANALYSIS & DESIGN, INC.

**Date:** November 7, 2019

# Technical Memorandum

**To:** Carolynn Gellings, P.E., Engineering Services Manager, Waukesha County
Jeffrey Weigel, P.E., Public Works Director, City of Pewaukee

**From:** John Campbell, P.E., RSP1
Christian R. Sternke, P.E., RSP1

**CC:** Bruce Barnes, P.E., Waukesha County
Magdelene Wagner, P.E., Assistant City Engineer, City of Pewaukee

**Subject:** Traffic and Safety Intersection Analysis
CTH F at Lindsay Road
City of Pewaukee, Waukesha County, Wisconsin

## PART A – INTRODUCTION

At the request of the City of Pewaukee, Waukesha County arranged a safety and operational analysis of the County Trunk Highway (CTH) F intersection with Lindsay Road within the City of Pewaukee, Waukesha County, Wisconsin. The traffic study is being conducted to determine if modifications to the roadway geometry and/or traffic control would improve the safety and operations of the intersection. Currently, the intersection observes delays during peak hours on its side-street approaches and has experienced numerous severe right-angle crashes in recent years.

This technical memorandum has been prepared to analyze the intersection under Year 2019 existing traffic conditions.

## PART B – EXISTING CONDITIONS

The CTH F intersection with Lindsay Road is located approximately 1.3 miles north of State Trunk Highway (STH) 190/Capitol Drive in the City of Pewaukee, Wisconsin. An aerial map showing the study area intersection is shown in Figure B1 on the following page.

**Figure B1**
**CTH F and Lindsay Road Aerial**




*CTH F*, also designated as Redford Boulevard, is a four-lane north/south divided highway with a posted speed limit of is 55 miles per hour (mph) in this area. The Wisconsin Department of Transportation (WisDOT) Year 2018 average annual daily traffic (AADT) volumes on CTH F were approximately 21,200 vehicles per day (vpd) south of Lindsay Road and 26,700-vpd north of Lindsay Road. WisDOT classifies CTH F as a principal arterial.

**Figure B2**
**CTH F Looking North Approaching Lindsay Road**



*Lindsay Road* is a two-lane east/west undivided roadway with a posted speed limit of 35-mph. The WisDOT Year 2018 AADT volumes on Lindsay Road were approximately 1,600-vpd west of CTH F. East of CTH F, WisDOT lists an AADT from Year 2015 of 960-vpd. WisDOT classifies Lindsay Road as a collector road.

**Figure B3**
**Lindsay Road Looking East Approaching CTH F**




Based on the 13-hour traffic turning movement count conducted for this study, the entering AADT of the CTH F intersection with Lindsay Road is estimated to be approximately 23,800-vpd.

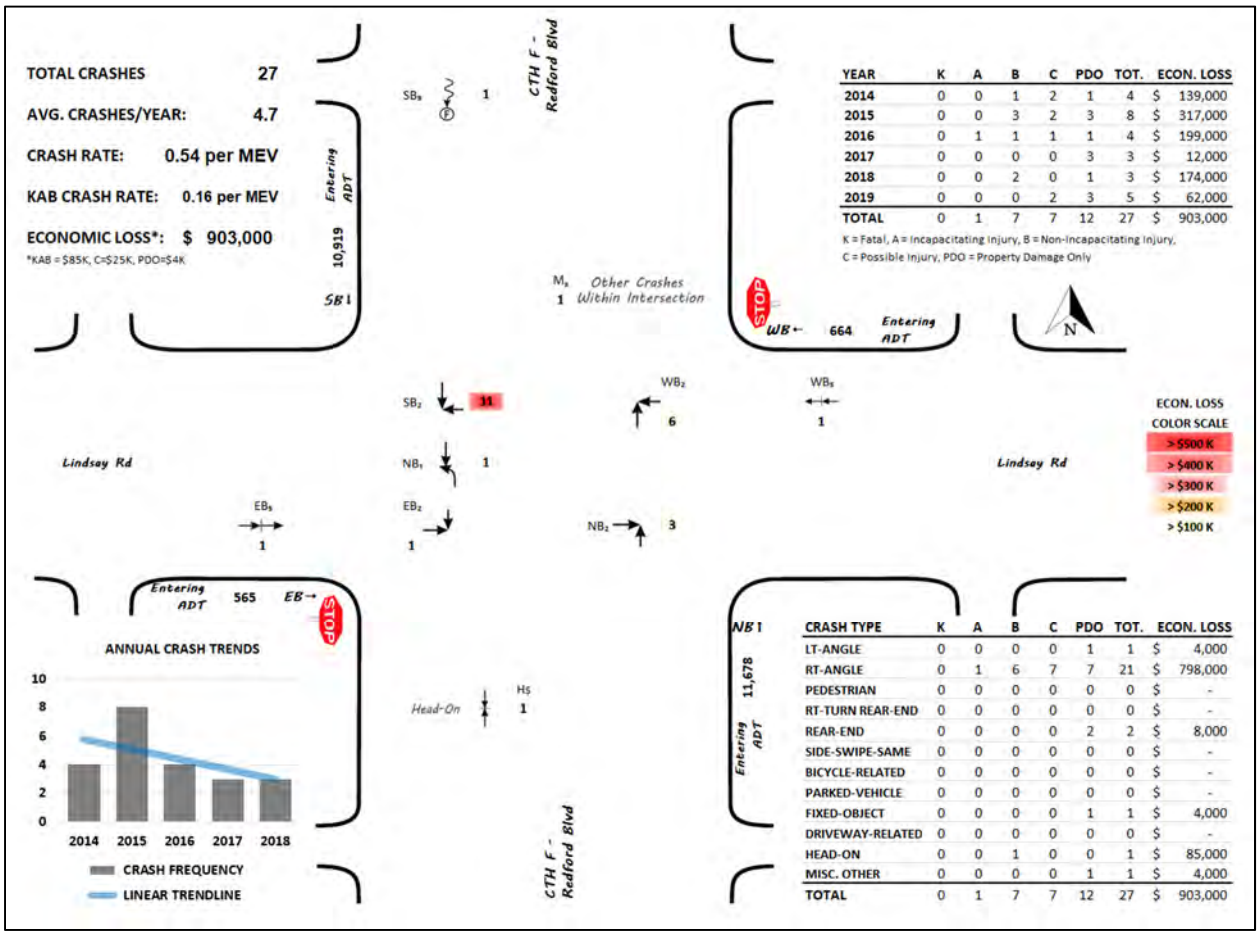
**B1. Crash Analysis**

A review of the crash records indicated that twenty-seven (27) non-deer crashes occurred at the intersection of CTH F with Lindsay Road between January 2014 and September 2019. The intersection crash rate was calculated to be 0.54 crashes per million entering vehicles (MEV) and the intersection averaged 4.7 crashes per year.

Most concerning at this location is the severity of the crashes observed. Seven (7) crashes resulted in Type C injury, another seven (7) resulted in Type B injury, and one (1) resulted in Type A injury. The remaining crashes (12) resulted in property damage only.

Figure B4 shows the intersection crash plot, while full crash diagram and statistics have been included in the appendix.

**Figure B4**
**Crash Diagram**




| YEAR | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| 2014 | 0 | 0 | 1 | 2 | 1 | 4 | $ 139,000 |
| 2015 | 0 | 0 | 3 | 2 | 3 | 8 | $ 317,000 |
| 2016 | 0 | 1 | 1 | 1 | 1 | 4 | $ 199,000 |
| 2017 | 0 | 0 | 0 | 0 | 3 | 3 | $ 12,000 |
| 2018 | 0 | 0 | 2 | 0 | 1 | 3 | $ 174,000 |
| 2019 | 0 | 0 | 0 | 2 | 3 | 5 | $ 62,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury,
C = Possible Injury, PDO = Property Damage Only

| CRASH TYPE | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| LT-ANGLE | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| RT-ANGLE | 0 | 1 | 6 | 7 | 7 | 21 | $ 798,000 |
| PEDESTRIAN | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| RT-TURN REAR-END | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| REAR-END | 0 | 0 | 0 | 0 | 2 | 2 | $ 8,000 |
| SIDE-SWIPE-SAME | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| BICYCLE-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| PARKED-VEHICLE | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| FIXED-OBJECT | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| DRIVEWAY-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| HEAD-ON | 0 | 0 | 1 | 0 | 0 | 1 | $ 85,000 |
| MISC. OTHER | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

Seventy eight percent (78%) of the crashes were right-angle crashes. Drivers have difficulty crossing CTH F from Lindsay Road, particularly in the westbound direction where 17 right-angle crashes occurred (11 struck by southbound vehicles and 6 by northbound vehicles). Factors leading to these angle crashes include:

- Lindsay Road drivers misjudging available gaps
- Drivers not seeing oncoming northbound/southbound CTH F vehicles
- The higher speeds of CTH F (55-mph posted speed)

In reviewing the accident report forms, drivers often stated they stopped in the median and did not see the approaching southbound vehicle. Because sight distance is adequate, it is suspected that drivers are overloaded with information navigating this intersection. Furthermore, the high speeds on CTH F increase the likelihood and severity of collisions.

**B2. Level of Service Definitions**

The study area intersection was analyzed based on the procedures set forth in the *Highway Capacity Manual, 6th Edition* (HCM) using Synchro 10 traffic models. Intersection operation is defined by "level of service". Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS 'A', to very poor, represented by LOS 'F'. For the purpose of this study, LOS D has been identified as the acceptable LOS for peak hour operating conditions. It is noted that this threshold is the industry standard for urban areas used by WisDOT and many municipalities. Descriptions of the various levels of service are as follows:

*LOS A* is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At signalized and unsignalized intersections, average delays are less than 10 seconds.

*LOS B* represents stable operation. At signalized intersections, average vehicle delays are 10 to 20 seconds. At unsignalized intersections, average delays are 10 to 15 seconds.

*LOS C* still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At signalized intersections, average vehicle delays are 20 to 35 seconds. At unsignalized intersections, average delays are 15 to 25 seconds.

*LOS D* represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are 35 to 55 seconds. At unsignalized intersections, average delays are 25 to 35 seconds.

*LOS E* represents the capacity of the intersection. At signalized intersections, average vehicle delays are 55 to 80 seconds. At unsignalized intersections, average delays are 35 to 50 seconds.

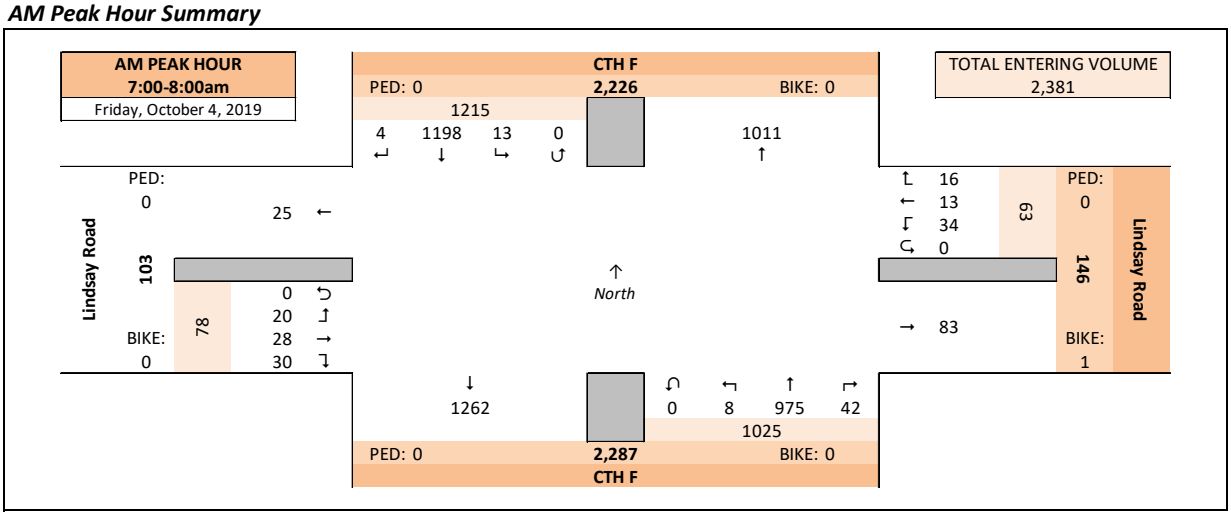
*LOS F* represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized intersections, average delays exceed 50 seconds.

**B3. Year 2019 Existing Traffic Operations – Existing Geometry & Traffic Control**

The weekday morning and weekday afternoon peak hours are expected to drive the improvements necessary to adequately accommodate the overall intersection volumes. A thirteen-hour (6:00 am to 7:00 pm) weekday turning movement count was conducted in late-September and early-October of 2019 at the study area intersection. Based on the turning movement counts, the weekday morning and weekday evening peak hours were identified as being 7:00 to 8:00 am and 4:30 to 5:30 pm, respectively. The existing traffic volumes at the study area intersection are shown below for the morning and evening peak hours. The traffic counts used to determine peak hour factors and truck percentages have been included in the appendix of this study.

## Figure B5
## Peak Hour Turning Movement Traffic Volumes

***AM Peak Hour Summary***




***PM Peak Hour Summary***

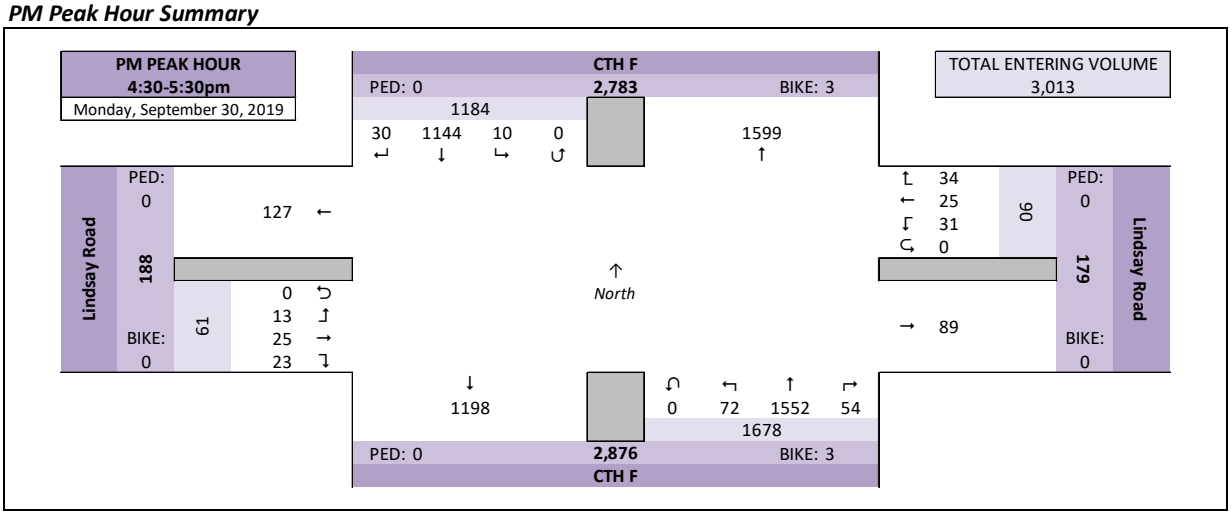



Table B3 shows the results of the Year 2019 existing weekday morning and weekday evening peak hour operational analysis at the study area intersection. The existing intersection geometry and traffic volumes were used for the analysis.

**Table B3**
**Year 2019 Existing Traffic Peak Hour Operating Conditions**
**With Existing Geometrics and Traffic Control**

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Two-Way Stop Control* | AM | LOS | **E** | | | D | | | B | * | * | B | * | * |
| | | Queue | 50 | | | 40 | | | 5 | * | * | 5 | * | * |
| | | Delay | 36.4 | | | 34.0 | | | 12.5 | * | * | 11.3 | * | * |
| | PM | LOS | **F** | | | **F** | | | B | * | * | C | * | * |
| | | Queue | 95 | | | 180 | | | 15 | * | * | 5 | * | * |
| | | Delay | 96.3 | | | 239.0 | | | 13.5 | * | * | 16.7 | * | * |

(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

As shown in Table B3, the eastbound shared lane is currently operating at LOS E conditions in the morning peak hour and the eastbound and westbound shared lanes are both operating at LOS F conditions in the evening peak hour. All other movements are operating acceptably at LOS D or better conditions. The existing traffic control analysis outputs are included in the appendix.

## PART C – ALTERNATIVE ANALYSIS

Two alternatives were evaluated as part of this study: a traffic signal alternative and a restricted crossing U-turn (RCUT) alternative.

### C1. Alternative One – Traffic Signal

*Note that traffic signal warrants should be viewed as guidelines to help decide whether a traffic signal may be installed. Meeting traffic signal warrants does not translate to a legal requirement for their installation. Warrant descriptions and completed warrant analysis worksheets are included in the appendix of this study.*

A traffic signal warrant analyses was performed at the CTH F intersection with Lindsay Road as part of this study. Chapter 4C of the 2009 *Manual on Uniform Traffic Control Devices* (MUTCD) outlines the standards for determining the need for traffic signals at a particular location. For a traffic signal to be installed, at least one of the following warrants must be satisfied. The eight signal warrants are listed below:

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Hour
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal Systems
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network

All warrants except Warrant 5 have been evaluated for this location. The posted speed limit along CTH F is 55-mph at the Lindsay Road intersection, so it was analyzed using the 70-percent minimum vehicular volumes per standard practice since the speed is greater than 40-mph.

The warrant analysis assumes the intersections to include two-lane approaches northbound and southbound on CTH F (major street) and a one-lane approaches eastbound and westbound along Lindsay Road (minor street). Right-turn movements on the Lindsay Road approaches were excluded from the approach volume per the MUTCD.

The traffic signal warrant study was conducted using the existing 13-hour turning movement counts collected at the intersection as part of this study.

Based on the warrant analysis, no warrants are expected to be met under Year 2019 existing traffic volumes. Therefore, traffic signals are not currently warranted at this intersection.

A sensitivity analysis was performed and for Warrant 7 to be met, Lindsay Road traffic would have to increase by at least fifteen percent (15%), and for Warrant 1 to be met, Lindsay Road traffic would have to increase by at least forty-five percent (45%).

Capacity analysis of the traffic signal alternative was performed using a Synchro 10 traffic model. Table C1 shows the results of the Year 2019 weekday morning and weekday evening peak hour operational analysis at the study area intersection under traffic signal control.

**Table C1**
**Year 2019 Existing Traffic Peak Hour Operating Conditions**
**Traffic Signal Control with Existing Geometrics**

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Traffic Signal Control* | AM | LOS | B | | | B | | | B | A | A | B | A | A |
| | | Queue | 65 | | | 55 | | | 5 | 140 | 10 | 10 | 195 | 5 |
| | | Delay | 15.9 | | | 15.7 | | | 13.0 | 7.1 | 4.8 | 10.3 | 8.2 | 4.7 |
| | PM | LOS | C | | | C | | | B | B | A | B | A | A |
| | | Queue | 55 | | | 75 | | | 45 | 325 | 15 | 10 | 190 | 10 |
| | | Delay | 20.8 | | | 21.3 | | | 13.4 | 10.0 | 4.2 | 17.2 | 6.8 | 4.1 |

(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

As shown in Table C1, under traffic signal control with existing geometrics, all movements are expected to operate at LOS C or better conditions under the Year 2019 existing traffic volumes. Traffic signal control analysis outputs are included in the appendix.

### C2. Alternative Two – Restricted Crossing U-Turn (RCUT)

A restricted crossing U-turn (RCUT) intersection design restricts through and left-turn movements from the minor street at the intersection and forces the vehicles desiring those movements to turn right and make a U-turn downstream. Figure C1 shows an aerial of an RCUT intersection located in Plymouth, WI at the intersection of STH 23 and CTH M.

**Figure C1**

Example RCUT Intersection – STH 23/CTH M in Plymouth, WI



The goal of an RCUT is to reduce conflict points at the intersection to improve overall safety. Compared to a conventional 4-legged intersection, an RCUT intersection drastically decreases the number of angle crashes, due to removing the minor street through and left-turn movements.

The CTH F intersection with Lindsay Road is a candidate for an RCUT because there is a history of angle crashes from the Lindsay Road approaches and it does not meet any traffic signal warrants. An RCUT would not impede the CTH F through movements. STH 23/CTH M intersection in Plymouth, WI is an intersection that had a similar angle crash issue and has similar volumes. After the installation of the RCUT design, crashes drastically decreased at the intersection. In the 12 years prior to the RCUT installation, STH 23/CTH observed two fatal crashes, three A-level (incapacitating injury) crashes, and eight B-level (non-incapacitating injury) crashes, and 15 other crashes. In the five years after installation, only five property damage only crashes were observed.

In order to perform an accurate capacity analysis of the RCUT intersection design at CTH F and Lindsay Road, a microsimulation software, such as VISSIM, would need to be used, but it was outside the scope of this study to perform such analysis.

## PART D – ALTERNATIVES COMPARISON

Two alternatives were looked at for the CTH F intersection with Lindsay Road: a traffic signal alternative and an RCUT alternative. Both have advantages and disadvantages, which are summarized in the table below. Both alternatives are expected to have a similar range of costs, between $300,000 and $600,000, but the estimates would need to be verified by a detailed cost estimate performed by roadway designers.

| TRAFFIC SIGNAL | ADVANTAGES | DISADVANTAGES |
|---|---|---|
| Access | Full access maintained.<br><br>Convenient access from side-street. | |
| Operations | Acceptable level-of-service traffic operations.<br><br>Vastly improved level-of-service on side-street approaches. | Reduced level-of-service for northbound and southbound traffic.<br><br>Previously free-flow through movements, which make approximately 90 percent of traffic at this intersection during the peak hours, would be subjected to delays averaging 8.2 sec/vehicle in peak hours. |
| Safety | Expected to reduce risk of right-angle crashes. | Expected to increase the likelihood of high-speed rear-end crashes.<br><br>Right-angle crashes, although less likely than in existing conditions, would still be expected to occur as a result of red-light-running. |
| Federal Aid | | Very unlikely to qualify for Federal Aid due to traffic signal warrants not being met. |
| **RCUT** | **ADVANTAGES** | **DISADVANTAGES** |
| Access | | Through and left-turn movements from Lindsay Road restricted at intersection and forced to turn right and make U-turn downstream. These movements make up approximately 3.5 percent of the total traffic during the peak hours. |
| Operations | Expected to operate acceptably, however microsimulation model, such as VISSIM, should be used to verify. | Through and left-turn movements from Lindsay Road restricted at intersection and forced to turn right and make U-turn downstream, which increases travel distance and may increase delay. |
| Safety | Expected to reduce risk of right-angle crashes as through and left-turn movements from Lindsay Road would be restricted. | |
| Federal Aid | Good chance for Federal Aid through HSIP program due to the crash reduction benefits of RCUT intersections. Eligibility should be verified with SE Region Safety Engineer. | |

**PART E – SUMMARY**

At the request of the City of Pewaukee, Waukesha County arranged a safety and operational analysis of the CTH F intersection with Lindsay Road. TADI performed capacity analysis of the existing conditions and looked at two alternatives to improve safety and operations at the intersection. Alternative One was to signalize the intersection, while Alternative Two was to install a Restricted Crossing U-Turn (RCUT) intersection design. Both improvements would be expected to reduce the risk of angle crashes, but with the traffic signal alternative, an increase in high-speed rear-end crashes would be expected and a risk for angle crashes caused by red-light-running would still exist. Traffic signal warrants are currently not met, and substantially more traffic Lindsay Road would be needed to meet the 8-hour volume warrant. Because warrants are not met, the traffic signal would not be a likely candidate for Federal Aid through the HSIP program. However, the RCUT intersection design appears to have a good chance of qualifying for Federal Aid (90 percent match through the HSIP program). It is suggested that HSIP eligibility be verified with he WisDOT SE Region safety engineer.

# APPENDIX A

## CRASH DIAGRAM AND STATISTICS

# Intersection Collision Diagram

TRAFFIC ANALYSIS & DESIGN, INC.

**Location:** CTH F & Lindsay Rd
**Municipality:** Pewaukee
**County:** Waukesha
**Traffic Control:** Minor Street Stop

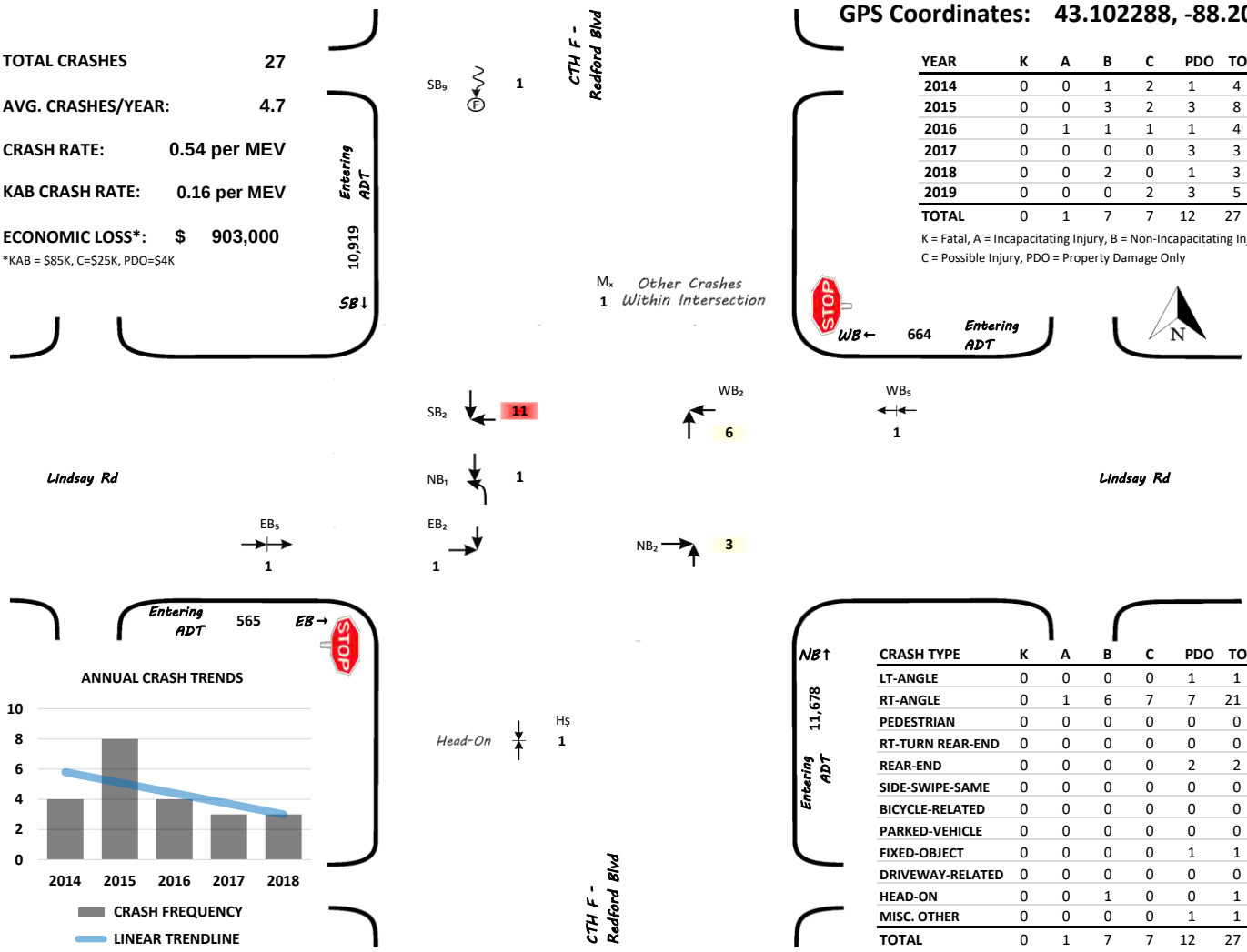
**Duration**
**From:** 1/1/2014 — 5 Years
**To:** 9/17/2019 — 8 Months
**AADT:** 23,826
**Area Type:** Urban
**GPS Coordinates:** 43.102288, -88.208759

MAP

**TOTAL CRASHES** 27
**AVG. CRASHES/YEAR:** 4.7
**CRASH RATE:** 0.54 per MEV
**KAB CRASH RATE:** 0.16 per MEV
**ECONOMIC LOSS*:** $ 903,000
*KAB = $85K, C=$25K, PDO=$4K

| YEAR | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| 2014 | 0 | 0 | 1 | 2 | 1 | 4 | $ 139,000 |
| 2015 | 0 | 0 | 3 | 2 | 3 | 8 | $ 317,000 |
| 2016 | 0 | 1 | 1 | 1 | 1 | 4 | $ 199,000 |
| 2017 | 0 | 0 | 0 | 0 | 3 | 3 | $ 12,000 |
| 2018 | 0 | 0 | 2 | 0 | 1 | 3 | $ 174,000 |
| 2019 | 0 | 0 | 0 | 2 | 3 | 5 | $ 62,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury,
C = Possible Injury, PDO = Property Damage Only













| CRASH TYPE | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| LT-ANGLE | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| RT-ANGLE | 0 | 1 | 6 | 7 | 7 | 21 | $ 798,000 |
| PEDESTRIAN | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| RT-TURN REAR-END | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| REAR-END | 0 | 0 | 0 | 0 | 2 | 2 | $ 8,000 |
| SIDE-SWIPE-SAME | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| BICYCLE-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| PARKED-VEHICLE | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| FIXED-OBJECT | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| DRIVEWAY-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| HEAD-ON | 0 | 0 | 1 | 0 | 0 | 1 | $ 85,000 |
| MISC. OTHER | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

| ROAD CONDITIONS | | |
|---|---|---|
| DRY | 22 | 81% |
| WET | 2 | 7% |
| SNOW | 2 | 7% |
| ICE | 1 | 4% |
| OTH. | 0 | 0% |
| TOT. | 27 | |

| LIGHT CONDITIONS | | |
|---|---|---|
| DAY | 24 | 89% |
| DARK | 3 | 11% |
| TOT. | 27 | |

| DRIVER BEHAVIOR | | |
|---|---|---|
| ALCOHOL | 0 | 0% |
| DRUGS | 0 | 0% |
| SPEED | 2 | 7% |

| SEASON | | |
|---|---|---|
| SPRING | 8 | 30% |
| SUMMER | 6 | 22% |
| FALL | 7 | 26% |
| WINTER | 6 | 22% |
| TOT. | 27 | |

| FAILURE TO YIELD | | |
|---|---|---|
| NB | 1 | 4% |
| SB | 0 | 0% |
| EB | 3 | 11% |
| WB | 12 | 44% |
| TBD | 0 | 0% |
| TOT. | 16 | |

| BLOWN CONTROL | | |
|---|---|---|
| NB | 0 | 0% |
| SB | 0 | 0% |
| EB | 0 | 0% |
| WB | 0 | 0% |
| TBD | 0 | 0% |
| TOT. | 0 | |

TBD = verification from crash report needed for direction

| VEHICLE DAMAGE | | |
|---|---|---|
| OTHER/UNK. | 0 | 0% |
| NONE | 2 | 4% |
| VERY MINOR | 0 | 0% |
| MINOR | 5 | 11% |
| MODERATE | 12 | 26% |
| SEVERE | 26 | 55% |
| VERY SEVERE | 2 | 4% |
| TOTAL VEHICLES | 47 | |

**NOTES:**

**DAY/TIME TRENDS**

| | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM | UNK | | TOT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MON | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | MON | 2 |
| TUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | TUE | 5 |
| WED | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | WED | 5 |
| THU | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | THU | 6 |
| FRI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | FRI | 7 |
| SAT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SAT | 1 |
| SUN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SUN | 1 |
| | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM | UNK | | TOT. |
| TOT. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 4 | 2 | 1 | 0 | 0 | 4 | 0 | 7 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | TOT. | 27 |

# Crash Data

**Corresponds to Collision Diagram**

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | **CTH F & Lindsay Rd** | **From:** | **1/1/2014** | | |
| **Municipality:** | **Pewaukee** | **To:** | **9/17/2019** | **Duration** | |
| **County:** | **Waukesha** | **AADT:** | **23,826** | **5** | **Years** |
| **Traffic Control:** | **Minor Street Stop** | **Area Type:** | **Urban** | **8** | **Months** |

| Ref # | Label | Doc. # | Date | Crash Type | Time | Severity | Road Cond. | Light Cond. | Alc. Flag | Drug Flag | Speed Flag | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | $EB_2$ | 3WL0LCTJQQ | 10/6/2017 | RT-ANGLE | 3 PM | | WET | | | | | |
| 2 | $EB_1$ | 3WL0LF2L6S | 9/17/2019 | REAR-END | 7 AM | | | | | | | Pulled ahead and stoppe |
| 3 | $WB_2$ | DJCLXF9 | 1/10/2014 | RT-ANGLE | 5 PM | | ICE | DARK | | | | |
| 4 | $WB_2$ | DHZMNHJ | 4/10/2015 | RT-ANGLE | 5 PM | B | | | | | | |
| 5 | $WB_2$ | DJ0G3X2 | 6/16/2016 | RT-ANGLE | 7 PM | C | | | | | | Medical issue, swerved i |
| 6 | $WB_2$ | 3WL0LF2L0P | 5/17/2018 | RT-ANGLE | 8 AM | | | | | | | |
| 7 | $WB_2$ | 3WL0LCTJXS | 6/18/2019 | RT-ANGLE | 12 PM | | | DAY | | | | |
| 8 | $WB_2$ | 3WL0MLVN1L | 7/23/2019 | RT-ANGLE | 5 PM | C | | | | | | |
| 9 | $WB_1$ | DHZ72TK | 5/1/2015 | REAR-END | 8 AM | | | | | | | Pulled ahead and backe |
| 10 | $NB_1$ | DHZ72VH | 8/5/2015 | LT-ANGLE | 9 AM | | | | | | | |
| 11 | $NB_2$ | DHZ8K5Z | 11/6/2014 | RT-ANGLE | 10 AM | C | | | | | | |
| 12 | $NB_2$ | DHZ8K7B | 1/21/2015 | RT-ANGLE | 5 PM | C | | DARK | | | | |
| 13 | $NB_2$ | DJ00RSK | 1/13/2016 | RT-ANGLE | 3 PM | B | SNOW | | | | Y | |
| 14 | $H_5$ | 3WL0NFKDHN | 9/21/2018 | HEAD-ON | 10 AM | B | | | | | | Swerved to avoid WB ve |
| 15 | $SB_2$ | DHZ72NG | 5/29/2014 | RT-ANGLE | 8 AM | B | | | | | | |
| 16 | $SB_2$ | DHZ72R2 | 12/12/2014 | RT-ANGLE | 3 PM | C | | DAY | | | | |
| 17 | $SB_2$ | DHZ8K72 | 1/10/2015 | RT-ANGLE | 3 PM | B | UNKN | | | | | |
| 18 | $SB_2$ | DHZ7T27 | 4/22/2015 | RT-ANGLE | 5 PM | C | | | | | | |
| 19 | $SB_2$ | DHZ7T36 | 8/12/2015 | RT-ANGLE | 5 PM | | | | | | | Missing Report |
| 20 | $SB_2$ | DHZTL9M | 9/29/2015 | RT-ANGLE | 9 AM | B | WET | | | | | |
| 21 | $SB_2$ | DJ0G3WX | 5/30/2016 | RT-ANGLE | 11 AM | A | | | | | | |
| 22 | $SB_2$ | 3WL0LCTJNZ | 5/4/2017 | RT-ANGLE | 6 PM | | | DAY | | | | |
| 23 | $SB_2$ | 3WL0M0C3CM | 10/27/2017 | RT-ANGLE | 11 AM | | | | | | | |
| 24 | $SB_2$ | 3WL0NFKDGF | 7/12/2018 | RT-ANGLE | 10 AM | B | | | | | | |
| 25 | $SB_2$ | 3WL0NFKDL9 | 3/3/2019 | RT-ANGLE | 10 AM | C | | | | | | |
| 26 | $SB_3$ | DJ0G3V4 | 2/9/2016 | FIXED-OBJECT | 8 PM | | SNOW | DARK | | | Y | Gust of wind, icy road |
| 27 | $M_4$ | 3WL0LVN066 | 9/9/2019 | MISC. OTHER | 5 PM | | | DAY | | | | SSO in median |
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| Ref # | Label | Doc. # | Date | Crash Type | Time | Severity | Road Cond. | Light Cond. | Alc. Flag | Drug Flag | Speed Flag | Notes |
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# APPENDIX B

## EXISTING TRAFFIC COUNTS

# Intersection Traffic Volume Report

| Count Basics | Version 2013.J4.1 | | Page 1 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *Base Information, Observed (13) Hour and Estimated (24) Hour Volume Summaries*

### *Intersection of: CTH F and Lindsay Road*

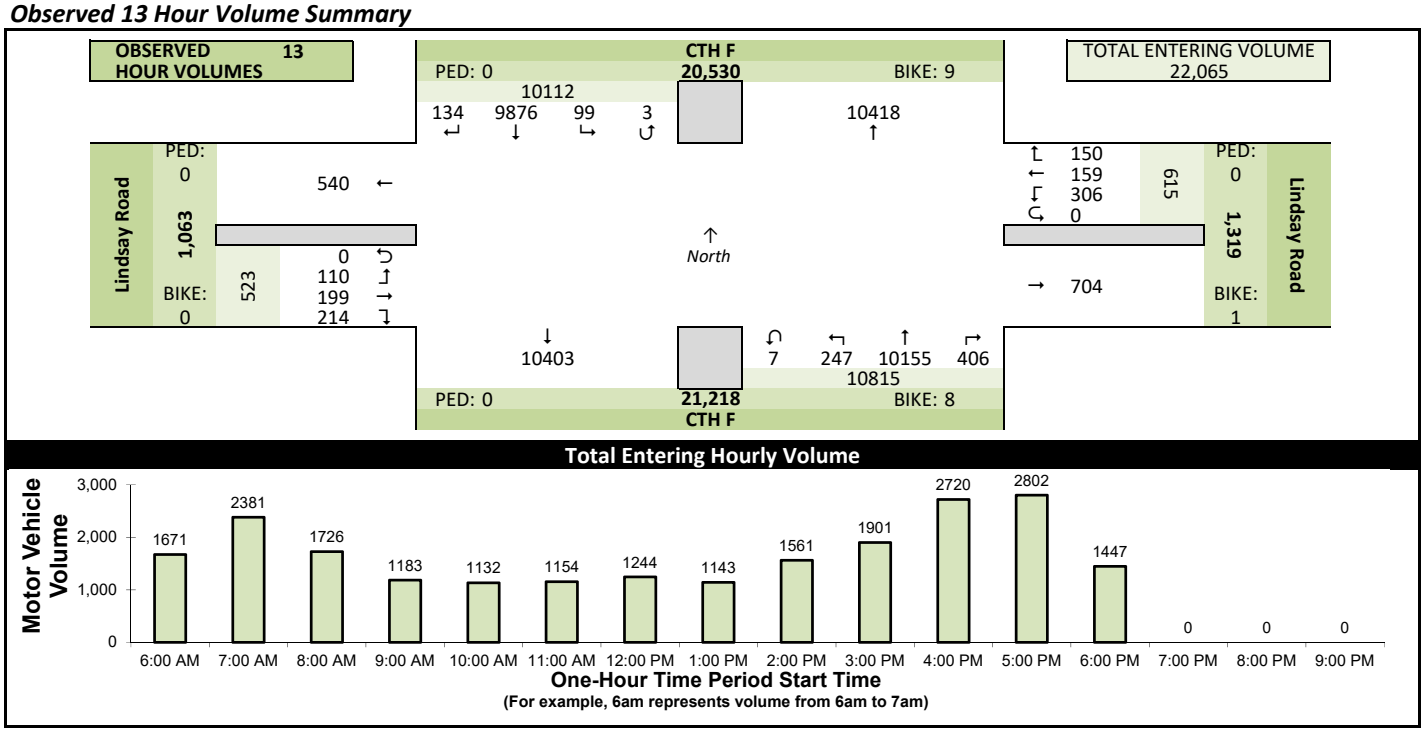
**Site Information**

| | | | |
|---|---|---|---|
| Municipality | Pewaukee | | |
| County | Waukesha | WisDOT Region | SE |
| Traffic Control | Partial Stop Control | | |
| Roadway Names | | North Direction | ↑ |
| North Leg | CTH F | | |
| East Leg | Lindsay Road | | |
| South Leg | CTH F | | |
| West Leg | Lindsay Road | | |
| Special Considerations | | | |
| Schools | In Session | | |
| Holidays | None | | |
| Special Events | None | | |
| Special Pedestrians Observed | | | |
| Pre-school children | None | | |
| Elementry school age children | None | | |
| Visually impaired (white cane/helper dog) | None | | |
| Elderly/disabled (except wheelchairs) | None | | |
| Wheelchairs/electric scooters | None | | |
| Other (describe) | None | None | |

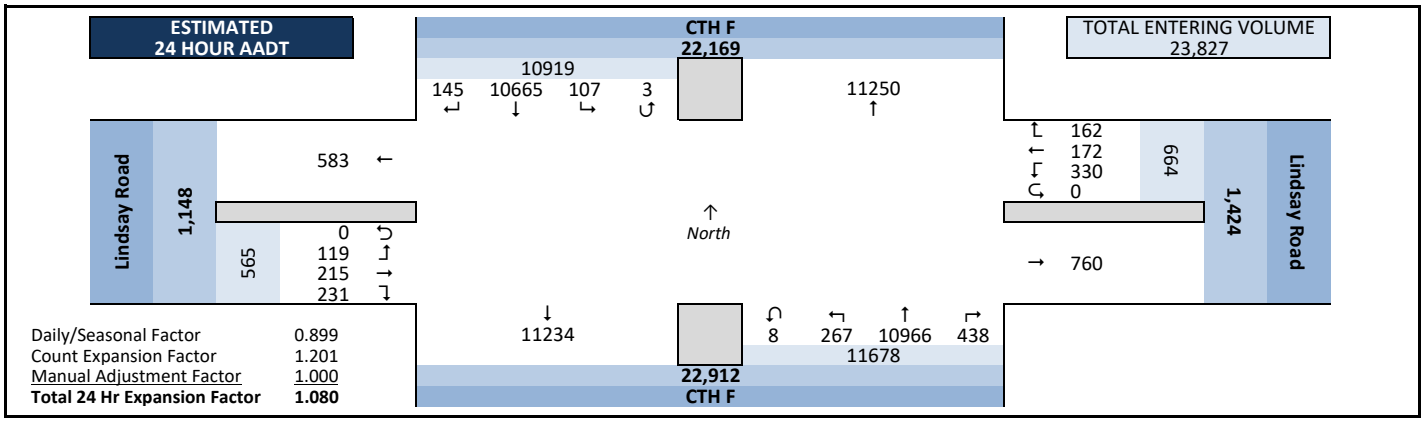
**Count Information**

| | | | | | |
|---|---|---|---|---|---|
| Hrs Counted: | 6:00 AM-7:00 PM | | | | |
| 1st Day of Count | Monday, September 30, 2019 | | | Weather | |
| AM Peak Period | Friday, October 4, 2019 | | | Clear & Dry | |
| Midday Peak Period | Monday, September 30, 2019 | | | Clear & Dry | |
| PM Peak Period | Monday, September 30, 2019 | | | Clear & Dry | |
| Calculated Peak Hours | | | | | |
| AM | 7:00-8:00am | MD | 11:30-12:30am | PM | 4:30-5:30pm |
| Peak Hours Selected for Analysis | | | | | |
| AM | 7:00-8:00am | MD | 11:30-12:30am | PM | 4:30-5:30pm |
| Daily/Seasonal Adjustment Group | (4) Rural Arterials & Collectors | | | | |
| Count Expansion Group | (4) Rural Arterials & Collectors | | | | |
| Daily/Seasonal Adjustment Factor | 0.899 | Count Expansion Factor | 1.201 | | |
| Company Name | TADI | | | Manual Adj. | 1.000 |
| Observers | AM Peak Period | Amy Scheuerlein | | | |
| | Midday Peak Period | Ted Atwell | | | |
| | PM Peak Period | Wendy Picard | | | |
| Comments | 2018 DOT Seasonal Factors | | | | |

### *Observed 13 Hour Volume Summary*




### *Estimated 24 Hour AADT*



# Intersection Traffic Volume Report

| Count Basics | | | Page 2 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

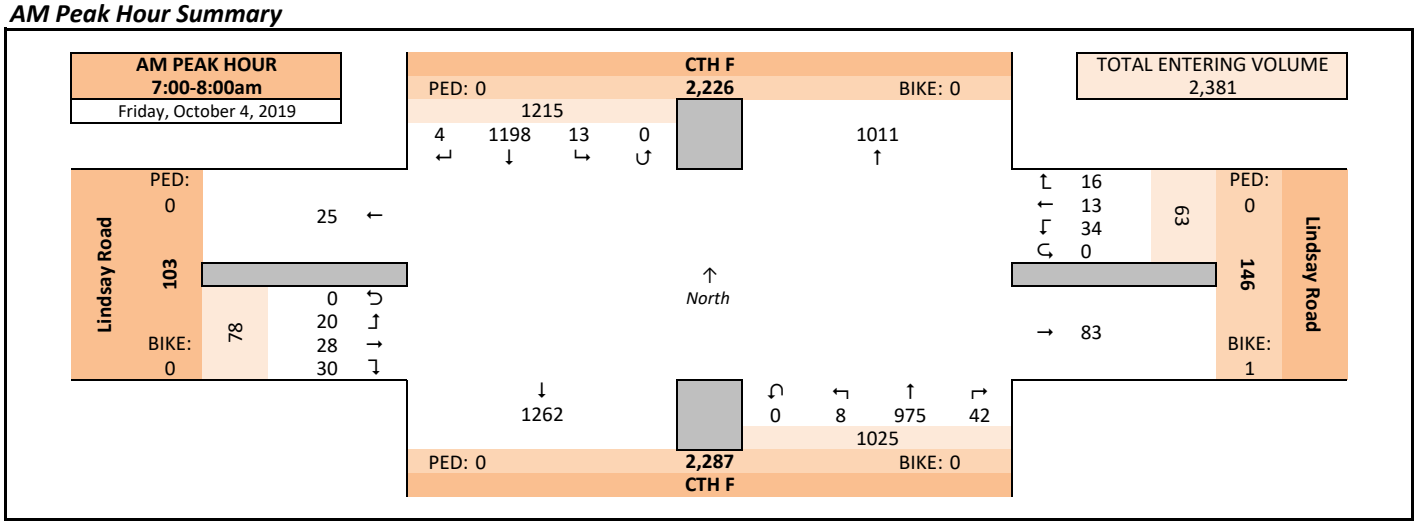
## *Peak Hour Volume Graphical Summary*

**All Motor Vehicles**

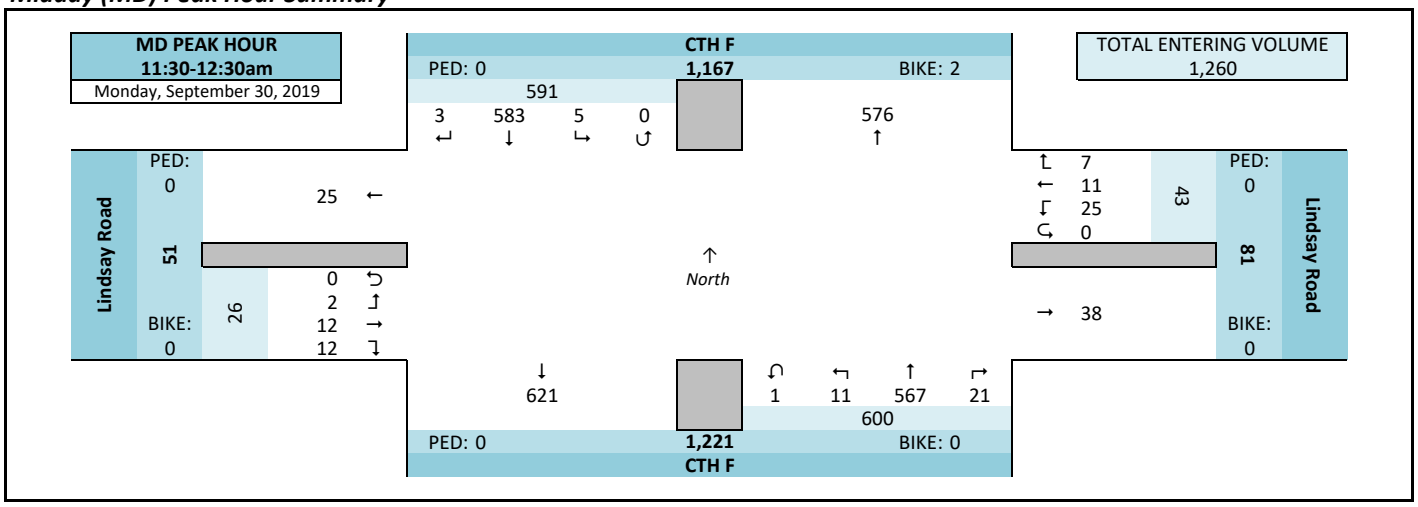


### *CTH F and Lindsay Road*

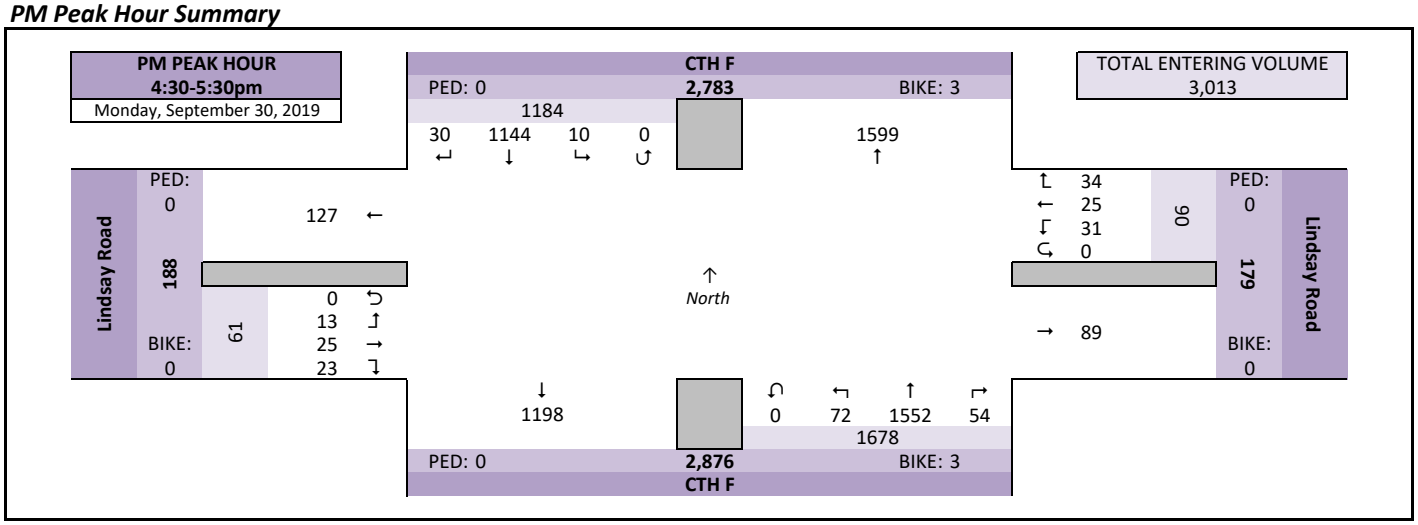
### *AM Peak Hour Summary*




### *Midday (MD) Peak Hour Summary*




### *PM Peak Hour Summary*



# Intersection Traffic Volume Report

| *Count Basics* | | *Page 3 of 13* |
|---|---|---|
| Start Date: Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | Non-Holiday | No Special Events |

## *Peak Hour Volume Summary*

**All Motor Vehicles**



### *CTH F and Lindsay Road*

**Peak Hour Volumes, Truck Percentages, and PHFs**

| Friday, October 4, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| AM Peak Hour | 7:00 AM | 0 | 286 | 2 | 0 | 288 | 3 | 2 | 9 | 0 | 14 | 7 | 182 | 2 | 0 | 191 | 4 | 6 | 3 | 0 | 13 | 506 |
| | 7:15 AM | 2 | 299 | 3 | 0 | 304 | 1 | 3 | 7 | 0 | 11 | 11 | 246 | 1 | 0 | 258 | 8 | 6 | 4 | 0 | 18 | 591 |
| | 7:30 AM | 0 | 313 | 4 | 0 | 317 | 5 | 4 | 7 | 0 | 16 | 9 | 278 | 3 | 0 | 290 | 8 | 8 | 6 | 0 | 22 | 645 |
| | 7:45 AM | 2 | 300 | 4 | 0 | 306 | 7 | 4 | 11 | 0 | 22 | 15 | 269 | 2 | 0 | 286 | 10 | 8 | 7 | 0 | 25 | 639 |
| | Peak Hour Volume | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 |
| | Rounded Hourly Volume | 5 | 1200 | 15 | 0 | 1220 | 15 | 15 | 35 | 0 | 65 | 40 | 975 | 10 | 0 | 1025 | 30 | 30 | 20 | 0 | 80 | 2390 |
| | % Single Unit Trucks | 0.0 | 7.1 | 7.7 | 0.0 | 7.1 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 7.1 | 5.8 | 0.0 | 0.0 | 5.9 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 6.3 |
| | % Heavy Trucks | 0.0 | 1.8 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 2.5 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| | % Trucks (Total) | 0.0 | 8.9 | 7.7 | 0.0 | 8.9 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 9.5 | 8.3 | 0.0 | 0.0 | 8.3 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 8.3 |
| | Peak Hour Factor (PHF) | 0.50 | 0.96 | 0.81 | 0.00 | 0.96 | 0.57 | 0.81 | 0.77 | 0.00 | 0.72 | 0.70 | 0.88 | 0.67 | 0.00 | 0.88 | 0.75 | 0.87 | 0.71 | 0.00 | 0.78 | 0.92 |

| Monday, September 30, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MD Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| Midday (MD) Peak Hour | 11:30 AM | 1 | 155 | 1 | 0 | 157 | 1 | 2 | 9 | 0 | 12 | 5 | 124 | 4 | 0 | 133 | 1 | 2 | 0 | 0 | 3 | 305 |
| | 11:45 AM | 2 | 127 | 0 | 0 | 129 | 2 | 1 | 5 | 0 | 8 | 6 | 157 | 1 | 0 | 164 | 5 | 4 | 0 | 0 | 9 | 310 |
| | 12:00 PM | 0 | 147 | 1 | 0 | 148 | 2 | 6 | 4 | 0 | 12 | 7 | 156 | 5 | 0 | 168 | 1 | 4 | 1 | 0 | 6 | 334 |
| | 12:15 PM | 0 | 154 | 3 | 0 | 157 | 2 | 2 | 7 | 0 | 11 | 3 | 130 | 1 | 1 | 135 | 5 | 2 | 1 | 0 | 8 | 311 |
| | Peak Hour Volume | 3 | 583 | 5 | 0 | 591 | 7 | 11 | 25 | 0 | 43 | 21 | 567 | 11 | 1 | 600 | 12 | 12 | 2 | 0 | 26 | 1260 |
| | Rounded Hourly Volume | 5 | 585 | 5 | 0 | 595 | 5 | 10 | 25 | 0 | 40 | 20 | 565 | 10 | 0 | 595 | 10 | 10 | 0 | 0 | 20 | 1250 |
| | % Single Unit Trucks | 0.0 | 15.6 | 20.0 | 0.0 | 15.6 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 16.0 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.2 |
| | % Heavy Trucks | 0.0 | 3.6 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| | % Trucks (Total) | 0.0 | 19.2 | 20.0 | 0.0 | 19.1 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 21.3 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.3 |
| | Peak Hour Factor (PHF) | 0.37 | 0.94 | 0.42 | 0.00 | 0.94 | 0.87 | 0.46 | 0.69 | 0.00 | 0.90 | 0.75 | 0.90 | 0.55 | 0.25 | 0.89 | 0.60 | 0.75 | 0.50 | 0.00 | 0.72 | 0.94 |

| Monday, September 30, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PM Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| PM Peak Hour | 4:30 PM | 4 | 278 | 3 | 0 | 285 | 7 | 6 | 8 | 0 | 21 | 9 | 389 | 15 | 0 | 413 | 2 | 4 | 2 | 0 | 8 | 727 |
| | 4:45 PM | 7 | 260 | 1 | 0 | 268 | 7 | 9 | 12 | 0 | 28 | 11 | 348 | 20 | 0 | 379 | 7 | 9 | 4 | 0 | 20 | 695 |
| | 5:00 PM | 8 | 287 | 1 | 0 | 296 | 10 | 5 | 7 | 0 | 22 | 15 | 370 | 17 | 0 | 402 | 5 | 5 | 3 | 0 | 13 | 733 |
| | 5:15 PM | 11 | 319 | 5 | 0 | 335 | 10 | 5 | 4 | 0 | 19 | 19 | 445 | 20 | 0 | 484 | 9 | 7 | 4 | 0 | 20 | 858 |
| | Peak Hour Volume | 30 | 1144 | 10 | 0 | 1184 | 34 | 25 | 31 | 0 | 90 | 54 | 1552 | 72 | 0 | 1678 | 23 | 25 | 13 | 0 | 61 | 3013 |
| | Rounded Hourly Volume | 30 | 1145 | 10 | 0 | 1185 | 35 | 25 | 30 | 0 | 90 | 55 | 1550 | 70 | 0 | 1675 | 25 | 25 | 15 | 0 | 65 | 3015 |
| | % Single Unit Trucks | 0.0 | 3.8 | 0.0 | 0.0 | 3.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.0 | 1.4 | 0.0 | 2.9 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.2 |
| | % Heavy Trucks | 0.0 | 0.9 | 20.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| | % Trucks (Total) | 0.0 | 4.6 | 20.0 | 0.0 | 4.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.7 | 1.4 | 0.0 | 3.5 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.9 |
| | Peak Hour Factor (PHF) | 0.68 | 0.90 | 0.50 | 0.00 | 0.88 | 0.85 | 0.69 | 0.65 | 0.00 | 0.80 | 0.71 | 0.87 | 0.90 | 0.00 | 0.87 | 0.64 | 0.69 | 0.81 | 0.00 | 0.76 | 0.88 |

**Peak Hour Pedestrian and Bicyclist Volumes**

| Pedestrians and Bicyclists | | Crossing North Approach | | | Crossing East Approach | | | Crossing South Approach | | | Crossing West Approach | | | Total Ped & Bike Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CTH F | | | Lindsay Road | | | CTH F | | | Lindsay Road | | | |
| | 15-Minute Start Time | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| MD | 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 11:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| PM | 4:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 3 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | 5:00 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 6 |

# Intersection Traffic Volume Report

| Count Basics | | | Page 4 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *Hourly Volume Summary - Motor Vehicle Data*

All Motor Vehicles

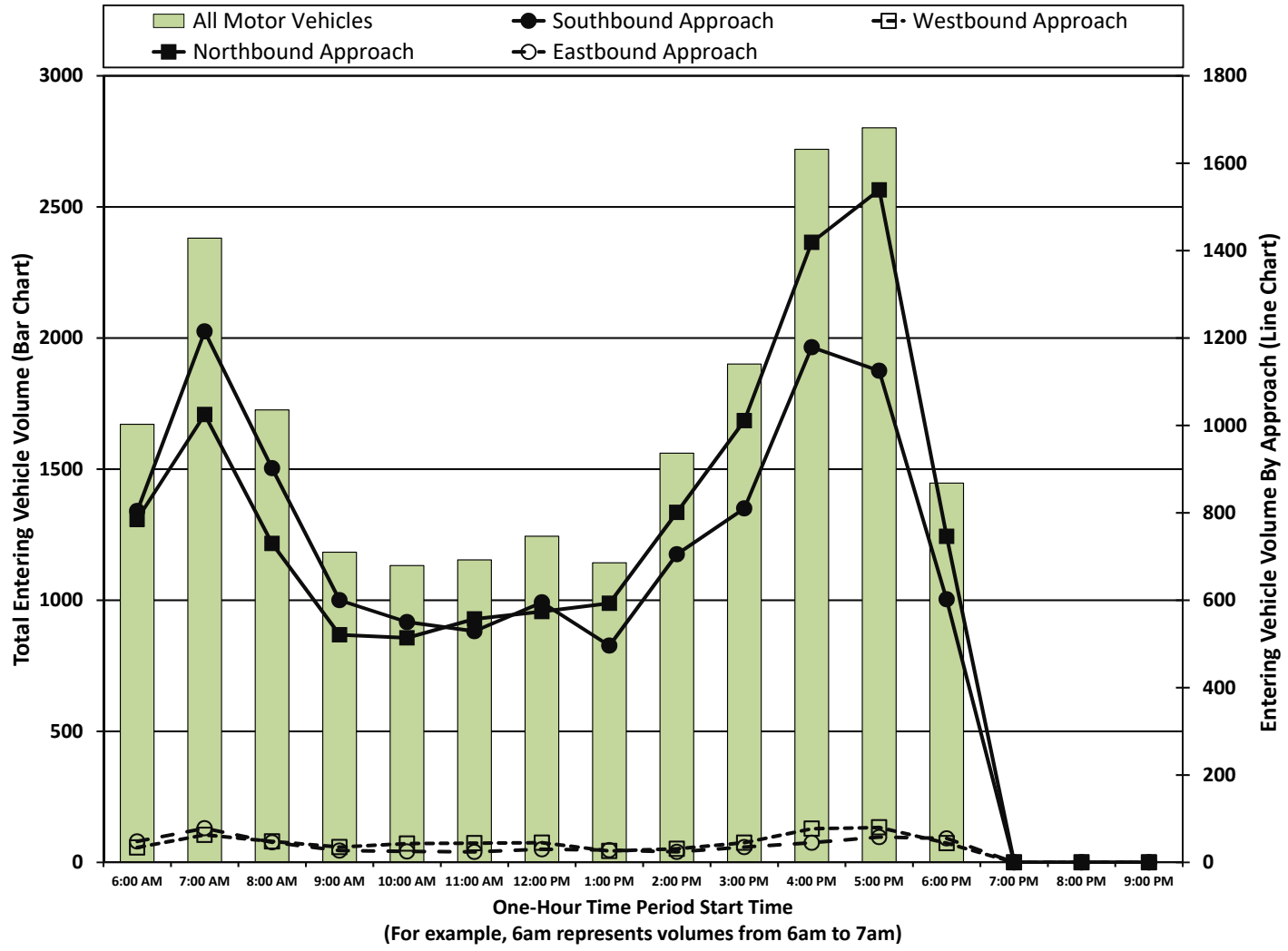


### *CTH F and Lindsay Road*

**One-Hour Motor Vehicle Data**

| One-Hour Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Vehicle Volume | Directional Volume Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | E/W | N/S |
| AM | 6:00 AM | 3 | 794 | 7 | 0 | 804 | 9 | 6 | 19 | 0 | 34 | 52 | 731 | 2 | 0 | 785 | 26 | 11 | 11 | 0 | 48 | 1671 | 82 | 1589 |
| | 7:00 AM | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 | 141 | 2240 |
| | 8:00 AM | 5 | 893 | 4 | 0 | 902 | 11 | 9 | 28 | 0 | 48 | 17 | 707 | 6 | 0 | 730 | 15 | 18 | 13 | 0 | 46 | 1726 | 94 | 1632 |
| | 9:00 AM | 6 | 589 | 5 | 0 | 600 | 8 | 4 | 23 | 0 | 35 | 21 | 495 | 5 | 0 | 521 | 14 | 8 | 5 | 0 | 27 | 1183 | 62 | 1121 |
| MD | 10:00 AM | 3 | 543 | 3 | 1 | 550 | 5 | 11 | 27 | 0 | 43 | 24 | 481 | 8 | 1 | 514 | 11 | 13 | 1 | 0 | 25 | 1132 | 68 | 1064 |
| | 11:00 AM | 5 | 520 | 4 | 0 | 529 | 8 | 10 | 26 | 0 | 44 | 23 | 522 | 11 | 1 | 557 | 11 | 11 | 2 | 0 | 24 | 1154 | 68 | 1086 |
| | 12:00 PM | 6 | 583 | 6 | 0 | 595 | 6 | 21 | 18 | 0 | 45 | 19 | 543 | 10 | 2 | 574 | 11 | 16 | 3 | 0 | 30 | 1244 | 75 | 1169 |
| | 1:00 PM | 9 | 485 | 2 | 0 | 496 | 5 | 10 | 11 | 0 | 26 | 20 | 553 | 19 | 1 | 593 | 14 | 8 | 6 | 0 | 28 | 1143 | 54 | 1089 |
| PM | 2:00 PM | 15 | 683 | 7 | 0 | 705 | 5 | 9 | 17 | 0 | 31 | 25 | 762 | 13 | 1 | 801 | 6 | 11 | 7 | 0 | 24 | 1561 | 55 | 1506 |
| | 3:00 PM | 11 | 789 | 8 | 2 | 810 | 13 | 9 | 23 | 0 | 45 | 31 | 953 | 27 | 0 | 1011 | 14 | 13 | 8 | 0 | 35 | 1901 | 80 | 1821 |
| | 4:00 PM | 23 | 1143 | 13 | 0 | 1179 | 24 | 23 | 30 | 0 | 77 | 40 | 1328 | 51 | 0 | 1419 | 17 | 19 | 9 | 0 | 45 | 2720 | 122 | 2598 |
| | 5:00 PM | 29 | 1079 | 17 | 0 | 1125 | 30 | 18 | 32 | 0 | 80 | 60 | 1414 | 65 | 0 | 1539 | 28 | 17 | 13 | 0 | 58 | 2802 | 138 | 2664 |
| | 6:00 PM | 15 | 577 | 10 | 0 | 602 | 10 | 16 | 18 | 0 | 44 | 32 | 691 | 22 | 1 | 746 | 17 | 26 | 12 | 0 | 55 | 1447 | 99 | 1348 |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | | 134 | 9876 | 99 | 3 | 10112 | 150 | 159 | 306 | 0 | 615 | 406 | 10155 | 247 | 7 | 10815 | 214 | 199 | 110 | 0 | 523 | 22065 | 1138 | 20927 |

## Graphical Summary of Hourly Volumes



# Intersection Traffic Volume Report

| Count Basics | | Page 5 of 13 |
|---|---|---|
| Start Date: Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | Non-Holiday | No Special Events |

## *15-Minute Motor Vehicle Data*

**All Motor Vehicles**



### *CTH F and Lindsay Road*

**15-Minute Motor Vehicle Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum | PHF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | | |
| AM Peak Period | 6:00 AM | 0 | 126 | 0 | 0 | 126 | 1 | 1 | 7 | 0 | 9 | 11 | 128 | 1 | 0 | 140 | 4 | 0 | 2 | 0 | 6 | 281 | 1671 | 0.79 |
| | 6:15 AM | 0 | 187 | 2 | 0 | 189 | 5 | 2 | 3 | 0 | 10 | 12 | 134 | 1 | 0 | 147 | 5 | 5 | 5 | 0 | 15 | 361 | 1896 | 0.89 |
| | 6:30 AM | 2 | 229 | 4 | 0 | 235 | 1 | 0 | 7 | 0 | 8 | 16 | 227 | 0 | 0 | 243 | 9 | 3 | 0 | 0 | 12 | 498 | 2126 | 0.90 |
| | 6:45 AM | 1 | 252 | 1 | 0 | 254 | 2 | 3 | 2 | 0 | 7 | 13 | 242 | 0 | 0 | 255 | 8 | 3 | 4 | 0 | 15 | 531 | 2273 | 0.88 |
| | 7:00 AM | 0 | 286 | 2 | 0 | 288 | 3 | 2 | 9 | 0 | 14 | 7 | 182 | 2 | 0 | 191 | 4 | 6 | 3 | 0 | 13 | 506 | 2381 | 0.92 |
| | 7:15 AM | 2 | 299 | 3 | 0 | 304 | 1 | 3 | 7 | 0 | 11 | 11 | 246 | 1 | 0 | 258 | 8 | 6 | 4 | 0 | 18 | 591 | 2379 | 0.92 |
| | 7:30 AM | 0 | 313 | 4 | 0 | 317 | 5 | 4 | 7 | 0 | 16 | 9 | 278 | 3 | 0 | 290 | 8 | 8 | 6 | 0 | 22 | 645 | 2242 | 0.87 |
| | 7:45 AM | 2 | 300 | 4 | 0 | 306 | 7 | 4 | 11 | 0 | 22 | 15 | 269 | 2 | 0 | 286 | 10 | 8 | 7 | 0 | 25 | 639 | 1999 | 0.78 |
| | 8:00 AM | 3 | 268 | 1 | 0 | 272 | 4 | 3 | 8 | 0 | 15 | 3 | 203 | 1 | 0 | 207 | 4 | 1 | 5 | 0 | 10 | 504 | 1726 | 0.86 |
| | 8:15 AM | 1 | 224 | 1 | 0 | 226 | 2 | 4 | 8 | 0 | 14 | 6 | 188 | 4 | 0 | 198 | 6 | 9 | 1 | 0 | 16 | 454 | 1520 | 0.84 |
| | 8:30 AM | 0 | 202 | 1 | 0 | 203 | 3 | 0 | 4 | 0 | 7 | 4 | 173 | 1 | 0 | 178 | 3 | 5 | 6 | 0 | 14 | 402 | 1354 | 0.84 |
| | 8:45 AM | 1 | 199 | 1 | 0 | 201 | 2 | 2 | 8 | 0 | 12 | 4 | 143 | 0 | 0 | 147 | 2 | 3 | 1 | 0 | 6 | 366 | 1235 | 0.84 |
| | 9:00 AM | 2 | 133 | 3 | 0 | 138 | 2 | 0 | 10 | 0 | 12 | 4 | 137 | 1 | 0 | 142 | 2 | 3 | 1 | 0 | 6 | 298 | 1183 | 0.94 |
| | 9:15 AM | 0 | 145 | 1 | 0 | 146 | 1 | 1 | 4 | 0 | 6 | 5 | 127 | 1 | 0 | 133 | 2 | 0 | 1 | 0 | 3 | 288 | 1173 | 0.93 |
| | 9:30 AM | 2 | 137 | 1 | 0 | 140 | 3 | 3 | 5 | 0 | 11 | 7 | 117 | 2 | 0 | 126 | 2 | 3 | 1 | 0 | 6 | 283 | 1156 | 0.92 |
| | 9:45 AM | 2 | 174 | 0 | 0 | 176 | 2 | 0 | 4 | 0 | 6 | 5 | 114 | 1 | 0 | 120 | 8 | 2 | 2 | 0 | 12 | 314 | 1175 | 0.94 |
| Midday Peak Period | 10:00 AM | 0 | 143 | 0 | 0 | 143 | 1 | 4 | 7 | 0 | 12 | 6 | 122 | 0 | 0 | 128 | 2 | 3 | 0 | 0 | 5 | 288 | 1132 | 0.94 |
| | 10:15 AM | 1 | 143 | 2 | 0 | 146 | 0 | 3 | 4 | 0 | 7 | 5 | 104 | 4 | 0 | 113 | 2 | 3 | 0 | 0 | 5 | 271 | 1113 | 0.92 |
| | 10:30 AM | 1 | 126 | 1 | 1 | 129 | 4 | 2 | 5 | 0 | 11 | 6 | 146 | 2 | 1 | 155 | 3 | 3 | 1 | 0 | 7 | 302 | 1112 | 0.92 |
| | 10:45 AM | 1 | 131 | 0 | 0 | 132 | 0 | 2 | 11 | 0 | 13 | 7 | 109 | 2 | 0 | 118 | 4 | 4 | 0 | 0 | 8 | 271 | 1115 | 0.91 |
| | 11:00 AM | 0 | 117 | 0 | 0 | 117 | 4 | 4 | 6 | 0 | 14 | 8 | 121 | 4 | 1 | 134 | 1 | 2 | 1 | 0 | 4 | 269 | 1154 | 0.93 |
| | 11:15 AM | 2 | 121 | 3 | 0 | 126 | 1 | 3 | 6 | 0 | 10 | 4 | 120 | 2 | 0 | 126 | 4 | 3 | 1 | 0 | 8 | 270 | 1219 | 0.91 |
| | 11:30 AM | 1 | 155 | 1 | 0 | 157 | 1 | 2 | 9 | 0 | 12 | 5 | 124 | 4 | 0 | 133 | 1 | 2 | 0 | 0 | 3 | 305 | 1260 | 0.94 |
| | 11:45 AM | 2 | 127 | 0 | 0 | 129 | 2 | 1 | 5 | 0 | 8 | 6 | 157 | 1 | 0 | 164 | 5 | 4 | 0 | 0 | 9 | 310 | 1258 | 0.94 |
| | 12:00 PM | 0 | 147 | 1 | 0 | 148 | 2 | 6 | 4 | 0 | 12 | 7 | 156 | 5 | 0 | 168 | 1 | 4 | 1 | 0 | 6 | 334 | 1244 | 0.93 |
| | 12:15 PM | 0 | 154 | 3 | 0 | 157 | 2 | 2 | 7 | 0 | 11 | 3 | 130 | 1 | 1 | 135 | 5 | 2 | 1 | 0 | 8 | 311 | 1204 | 0.97 |
| | 12:30 PM | 3 | 128 | 1 | 0 | 132 | 1 | 8 | 5 | 0 | 14 | 3 | 145 | 1 | 0 | 149 | 2 | 6 | 0 | 0 | 8 | 303 | 1167 | 0.96 |
| | 12:45 PM | 3 | 154 | 1 | 0 | 158 | 1 | 5 | 2 | 0 | 8 | 6 | 112 | 3 | 1 | 122 | 3 | 4 | 1 | 0 | 8 | 296 | 1163 | 0.97 |
| | 1:00 PM | 1 | 145 | 0 | 0 | 146 | 0 | 2 | 4 | 0 | 6 | 5 | 122 | 3 | 1 | 131 | 6 | 3 | 2 | 0 | 11 | 294 | 1143 | 0.96 |
| | 1:15 PM | 4 | 95 | 0 | 0 | 99 | 4 | 4 | 2 | 0 | 10 | 4 | 152 | 6 | 0 | 162 | 1 | 1 | 1 | 0 | 3 | 274 | 1217 | 0.83 |
| | 1:30 PM | 1 | 133 | 1 | 0 | 135 | 1 | 3 | 4 | 0 | 8 | 5 | 143 | 4 | 0 | 152 | 2 | 1 | 1 | 0 | 4 | 299 | 1309 | 0.89 |
| | 1:45 PM | 3 | 112 | 1 | 0 | 116 | 0 | 1 | 1 | 0 | 2 | 6 | 136 | 6 | 0 | 148 | 5 | 3 | 2 | 0 | 10 | 276 | 1462 | 0.81 |
| PM Peak Period | 2:00 PM | 2 | 171 | 1 | 0 | 174 | 0 | 2 | 2 | 0 | 4 | 6 | 175 | 3 | 0 | 184 | 1 | 5 | 0 | 0 | 6 | 368 | 1561 | 0.86 |
| | 2:15 PM | 4 | 153 | 0 | 0 | 157 | 2 | 2 | 8 | 0 | 12 | 5 | 186 | 4 | 0 | 195 | 0 | 1 | 1 | 0 | 2 | 366 | 1625 | 0.90 |
| | 2:30 PM | 3 | 202 | 4 | 0 | 209 | 1 | 2 | 3 | 0 | 6 | 8 | 216 | 3 | 1 | 228 | 3 | 2 | 4 | 0 | 9 | 452 | 1687 | 0.93 |
| | 2:45 PM | 6 | 157 | 2 | 0 | 165 | 2 | 3 | 4 | 0 | 9 | 6 | 185 | 3 | 0 | 194 | 2 | 3 | 2 | 0 | 7 | 375 | 1761 | 0.84 |
| | 3:00 PM | 4 | 200 | 1 | 0 | 205 | 5 | 3 | 5 | 0 | 13 | 9 | 194 | 5 | 0 | 208 | 2 | 2 | 2 | 0 | 6 | 432 | 1901 | 0.90 |
| | 3:15 PM | 2 | 166 | 2 | 0 | 170 | 1 | 2 | 4 | 0 | 7 | 9 | 228 | 3 | 0 | 240 | 4 | 4 | 3 | 0 | 11 | 428 | 2091 | 0.84 |
| | 3:30 PM | 4 | 237 | 3 | 1 | 245 | 3 | 3 | 8 | 0 | 14 | 6 | 240 | 11 | 0 | 257 | 5 | 4 | 1 | 0 | 10 | 526 | 2339 | 0.87 |
| | 3:45 PM | 1 | 186 | 2 | 1 | 190 | 4 | 1 | 6 | 0 | 11 | 7 | 291 | 8 | 0 | 306 | 3 | 3 | 2 | 0 | 8 | 515 | 2540 | 0.87 |
| | 4:00 PM | 6 | 292 | 5 | 0 | 303 | 3 | 4 | 3 | 0 | 10 | 7 | 282 | 9 | 0 | 298 | 5 | 4 | 2 | 0 | 11 | 622 | 2720 | 0.94 |
| | 4:15 PM | 6 | 313 | 4 | 0 | 323 | 7 | 4 | 7 | 0 | 18 | 13 | 309 | 7 | 0 | 329 | 3 | 2 | 1 | 0 | 6 | 676 | 2831 | 0.97 |
| | 4:30 PM | 4 | 278 | 3 | 0 | 285 | 7 | 6 | 8 | 0 | 21 | 9 | 389 | 15 | 0 | 413 | 2 | 4 | 2 | 0 | 8 | 727 | 3013 | 0.88 |
| | 4:45 PM | 7 | 260 | 1 | 0 | 268 | 7 | 9 | 12 | 0 | 28 | 11 | 348 | 20 | 0 | 379 | 7 | 9 | 4 | 0 | 20 | 695 | 2986 | 0.87 |
| | 5:00 PM | 8 | 287 | 1 | 0 | 296 | 10 | 5 | 7 | 0 | 22 | 15 | 370 | 17 | 0 | 402 | 5 | 5 | 3 | 0 | 13 | 733 | 2802 | 0.82 |
| | 5:15 PM | 11 | 319 | 5 | 0 | 335 | 10 | 5 | 4 | 0 | 19 | 19 | 445 | 20 | 0 | 484 | 9 | 7 | 4 | 0 | 20 | 858 | 2471 | 0.72 |
| | 5:30 PM | 8 | 282 | 5 | 0 | 295 | 5 | 5 | 10 | 0 | 20 | 15 | 335 | 18 | 0 | 368 | 9 | 3 | 5 | 0 | 17 | 700 | 1992 | 0.71 |
| | 5:45 PM | 2 | 191 | 6 | 0 | 199 | 5 | 3 | 11 | 0 | 19 | 11 | 264 | 10 | 0 | 285 | 5 | 2 | 1 | 0 | 8 | 511 | 1636 | 0.80 |
| | 6:00 PM | 3 | 184 | 3 | 0 | 190 | 3 | 6 | 5 | 0 | 14 | 8 | 171 | 2 | 0 | 181 | 6 | 8 | 3 | 0 | 17 | 402 | 1447 | 0.90 |
| | 6:15 PM | 3 | 150 | 2 | 0 | 155 | 0 | 2 | 3 | 0 | 5 | 6 | 197 | 8 | 0 | 211 | 2 | 5 | 1 | 0 | 8 | 379 | | |
| | 6:30 PM | 6 | 126 | 5 | 0 | 137 | 5 | 4 | 2 | 0 | 11 | 9 | 169 | 6 | 0 | 184 | 5 | 5 | 2 | 0 | 12 | 344 | | |
| | 6:45 PM | 3 | 117 | 0 | 0 | 120 | 2 | 4 | 8 | 0 | 14 | 9 | 154 | 6 | 1 | 170 | 4 | 8 | 6 | 0 | 18 | 322 | | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Totals | | 134 | 9876 | 99 | 3 | 10112 | 150 | 159 | 306 | 0 | 615 | 406 | 10155 | 247 | 7 | 10815 | 214 | 199 | 110 | 0 | 523 | 22065 | | |

**Peak Hour All Vehicle Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume | PHF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM | 7:00 AM | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 | 0.92 |
| MD | 11:30 AM | 3 | 583 | 5 | 0 | 591 | 7 | 11 | 25 | 0 | 43 | 21 | 567 | 11 | 1 | 600 | 12 | 12 | 2 | 0 | 26 | 1260 | 0.94 |
| PM | 4:30 PM | 30 | 1144 | 10 | 0 | 1184 | 34 | 25 | 31 | 0 | 90 | 54 | 1552 | 72 | 0 | 1678 | 23 | 25 | 13 | 0 | 61 | 3013 | 0.88 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 6 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Automobile Data*

**Automobiles (Cars, Light Trucks, & Motorcycles)**



### *CTH F and Lindsay Road*

**15-Minute Automobile Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| *AM Peak Period* | 6:00 AM | 0 | 110 | 0 | 0 | 110 | 1 | 1 | 7 | 0 | 9 | 11 | 112 | 1 | 0 | 124 | 4 | 0 | 2 | 0 | 6 | 249 | 1490 |
| | 6:15 AM | 0 | 164 | 2 | 0 | 166 | 3 | 2 | 3 | 0 | 8 | 11 | 119 | 1 | 0 | 131 | 5 | 5 | 5 | 0 | 15 | 320 | 1702 |
| | 6:30 AM | 2 | 207 | 3 | 0 | 212 | 1 | 0 | 4 | 0 | 5 | 15 | 203 | 0 | 0 | 218 | 9 | 3 | 0 | 0 | 12 | 447 | 1925 |
| | 6:45 AM | 1 | 228 | 1 | 0 | 230 | 1 | 3 | 1 | 0 | 5 | 13 | 211 | 0 | 0 | 224 | 8 | 3 | 4 | 0 | 15 | 474 | 2075 |
| | 7:00 AM | 0 | 256 | 2 | 0 | 258 | 1 | 2 | 9 | 0 | 12 | 7 | 169 | 2 | 0 | 178 | 4 | 6 | 3 | 0 | 13 | 461 | 2184 |
| | 7:15 AM | 2 | 269 | 3 | 0 | 274 | 1 | 3 | 7 | 0 | 11 | 11 | 228 | 1 | 0 | 240 | 8 | 6 | 4 | 0 | 18 | 543 | 2170 |
| | 7:30 AM | 0 | 294 | 3 | 0 | 297 | 5 | 4 | 7 | 0 | 16 | 7 | 252 | 3 | 0 | 262 | 8 | 8 | 6 | 0 | 22 | 597 | 2018 |
| | 7:45 AM | 2 | 272 | 4 | 0 | 278 | 7 | 3 | 11 | 0 | 21 | 13 | 245 | 2 | 0 | 260 | 10 | 7 | 7 | 0 | 24 | 583 | 1757 |
| | 8:00 AM | 3 | 250 | 1 | 0 | 254 | 3 | 3 | 7 | 0 | 13 | 3 | 166 | 1 | 0 | 170 | 4 | 1 | 5 | 0 | 10 | 447 | 1483 |
| | 8:15 AM | 0 | 192 | 1 | 0 | 193 | 2 | 4 | 7 | 0 | 13 | 5 | 160 | 4 | 0 | 169 | 6 | 9 | 1 | 0 | 16 | 391 | 1282 |
| | 8:30 AM | 0 | 185 | 1 | 0 | 186 | 2 | 0 | 3 | 0 | 5 | 3 | 127 | 1 | 0 | 131 | 3 | 5 | 6 | 0 | 14 | 336 | 1142 |
| | 8:45 AM | 1 | 164 | 1 | 0 | 166 | 1 | 2 | 8 | 0 | 11 | 4 | 124 | 0 | 0 | 128 | 1 | 2 | 1 | 0 | 4 | 309 | 1035 |
| | 9:00 AM | 1 | 117 | 3 | 0 | 121 | 2 | 0 | 10 | 0 | 12 | 2 | 104 | 1 | 0 | 107 | 2 | 3 | 1 | 0 | 6 | 246 | 992 |
| | 9:15 AM | 0 | 126 | 0 | 0 | 126 | 1 | 1 | 4 | 0 | 6 | 5 | 110 | 1 | 0 | 116 | 2 | 0 | 1 | 0 | 3 | 251 | 963 |
| | 9:30 AM | 2 | 111 | 1 | 0 | 114 | 3 | 3 | 5 | 0 | 11 | 6 | 90 | 2 | 0 | 98 | 2 | 3 | 1 | 0 | 6 | 229 | 906 |
| | 9:45 AM | 2 | 153 | 0 | 0 | 155 | 1 | 0 | 3 | 0 | 4 | 5 | 90 | 1 | 0 | 96 | 7 | 2 | 2 | 0 | 11 | 266 | 915 |
| *Midday Peak Period* | 10:00 AM | 0 | 112 | 0 | 0 | 112 | 1 | 3 | 5 | 0 | 9 | 4 | 87 | 0 | 0 | 91 | 2 | 3 | 0 | 0 | 5 | 217 | 857 |
| | 10:15 AM | 1 | 104 | 2 | 0 | 107 | 0 | 3 | 4 | 0 | 7 | 5 | 68 | 3 | 0 | 76 | 2 | 2 | 0 | 0 | 4 | 194 | 853 |
| | 10:30 AM | 1 | 103 | 1 | 1 | 106 | 4 | 1 | 4 | 0 | 9 | 5 | 108 | 2 | 1 | 116 | 3 | 3 | 1 | 0 | 7 | 238 | 880 |
| | 10:45 AM | 1 | 95 | 0 | 0 | 96 | 0 | 2 | 11 | 0 | 13 | 5 | 84 | 2 | 0 | 91 | 4 | 4 | 0 | 0 | 8 | 208 | 898 |
| | 11:00 AM | 0 | 87 | 0 | 0 | 87 | 4 | 3 | 5 | 0 | 12 | 7 | 98 | 4 | 1 | 110 | 1 | 2 | 1 | 0 | 4 | 213 | 934 |
| | 11:15 AM | 2 | 99 | 3 | 0 | 104 | 0 | 3 | 5 | 0 | 8 | 2 | 97 | 2 | 0 | 101 | 4 | 3 | 1 | 0 | 8 | 221 | 991 |
| | 11:30 AM | 1 | 130 | 1 | 0 | 132 | 1 | 2 | 8 | 0 | 11 | 4 | 102 | 4 | 0 | 110 | 1 | 2 | 0 | 0 | 3 | 256 | 1017 |
| | 11:45 AM | 2 | 102 | 0 | 0 | 104 | 0 | 1 | 5 | 0 | 6 | 6 | 118 | 1 | 0 | 125 | 5 | 4 | 0 | 0 | 9 | 244 | 1006 |
| | 12:00 PM | 0 | 122 | 1 | 0 | 123 | 2 | 6 | 3 | 0 | 11 | 7 | 118 | 5 | 0 | 130 | 1 | 4 | 1 | 0 | 6 | 270 | 982 |
| | 12:15 PM | 0 | 117 | 2 | 0 | 119 | 1 | 2 | 5 | 0 | 8 | 2 | 108 | 1 | 1 | 112 | 5 | 2 | 1 | 0 | 8 | 247 | 948 |
| | 12:30 PM | 3 | 104 | 1 | 0 | 108 | 1 | 8 | 5 | 0 | 14 | 2 | 114 | 1 | 0 | 117 | 2 | 4 | 0 | 0 | 6 | 245 | 927 |
| | 12:45 PM | 3 | 111 | 1 | 0 | 115 | 0 | 4 | 2 | 0 | 6 | 6 | 81 | 3 | 1 | 91 | 3 | 4 | 1 | 0 | 8 | 220 | 929 |
| | 1:00 PM | 1 | 114 | 0 | 0 | 115 | 0 | 2 | 3 | 0 | 5 | 3 | 98 | 3 | 1 | 105 | 6 | 3 | 2 | 0 | 11 | 236 | 933 |
| | 1:15 PM | 4 | 87 | 0 | 0 | 91 | 4 | 4 | 1 | 0 | 9 | 3 | 114 | 6 | 0 | 123 | 1 | 1 | 1 | 0 | 3 | 226 | 989 |
| | 1:30 PM | 1 | 103 | 1 | 0 | 105 | 1 | 3 | 4 | 0 | 8 | 5 | 121 | 4 | 0 | 130 | 2 | 1 | 1 | 0 | 4 | 247 | 1060 |
| | 1:45 PM | 3 | 90 | 1 | 0 | 94 | 0 | 1 | 1 | 0 | 2 | 6 | 106 | 6 | 0 | 118 | 5 | 3 | 2 | 0 | 10 | 224 | 1216 |
| *PM Peak Period* | 2:00 PM | 2 | 135 | 0 | 0 | 137 | 0 | 2 | 2 | 0 | 4 | 5 | 137 | 3 | 0 | 145 | 1 | 5 | 0 | 0 | 6 | 292 | 1315 |
| | 2:15 PM | 4 | 119 | 0 | 0 | 123 | 2 | 2 | 5 | 0 | 9 | 4 | 156 | 4 | 0 | 164 | 0 | 0 | 1 | 0 | 1 | 297 | 1409 |
| | 2:30 PM | 3 | 179 | 3 | 0 | 185 | 1 | 2 | 3 | 0 | 6 | 8 | 191 | 3 | 1 | 203 | 3 | 2 | 4 | 0 | 9 | 403 | 1498 |
| | 2:45 PM | 6 | 135 | 1 | 0 | 142 | 1 | 3 | 4 | 0 | 8 | 6 | 158 | 3 | 0 | 167 | 2 | 2 | 2 | 0 | 6 | 323 | 1580 |
| | 3:00 PM | 4 | 178 | 1 | 0 | 183 | 5 | 2 | 5 | 0 | 12 | 8 | 173 | 5 | 0 | 186 | 2 | 2 | 1 | 0 | 5 | 386 | 1734 |
| | 3:15 PM | 1 | 150 | 1 | 0 | 152 | 1 | 2 | 3 | 0 | 6 | 7 | 208 | 2 | 0 | 217 | 4 | 4 | 3 | 0 | 11 | 386 | 1920 |
| | 3:30 PM | 4 | 215 | 3 | 1 | 223 | 3 | 3 | 7 | 0 | 13 | 5 | 224 | 11 | 0 | 240 | 5 | 3 | 1 | 0 | 9 | 485 | 2162 |
| | 3:45 PM | 1 | 171 | 2 | 1 | 175 | 4 | 1 | 6 | 0 | 11 | 4 | 271 | 8 | 0 | 283 | 3 | 3 | 2 | 0 | 8 | 477 | 2370 |
| | 4:00 PM | 6 | 270 | 5 | 0 | 281 | 3 | 3 | 2 | 0 | 8 | 7 | 257 | 9 | 0 | 273 | 5 | 3 | 2 | 0 | 10 | 572 | 2564 |
| | 4:15 PM | 6 | 291 | 3 | 0 | 300 | 7 | 3 | 7 | 0 | 17 | 10 | 288 | 7 | 0 | 305 | 3 | 2 | 1 | 0 | 6 | 628 | 2707 |
| | 4:30 PM | 4 | 261 | 2 | 0 | 267 | 7 | 6 | 8 | 0 | 21 | 9 | 374 | 15 | 0 | 398 | 2 | 4 | 1 | 0 | 7 | 693 | 2895 |
| | 4:45 PM | 7 | 251 | 0 | 0 | 258 | 7 | 8 | 12 | 0 | 27 | 11 | 336 | 19 | 0 | 366 | 7 | 9 | 4 | 0 | 20 | 671 | 2878 |
| | 5:00 PM | 8 | 280 | 1 | 0 | 289 | 10 | 5 | 7 | 0 | 22 | 15 | 359 | 17 | 0 | 391 | 5 | 5 | 3 | 0 | 13 | 715 | 2688 |
| | 5:15 PM | 11 | 299 | 5 | 0 | 315 | 9 | 5 | 4 | 0 | 18 | 18 | 426 | 20 | 0 | 464 | 8 | 7 | 4 | 0 | 19 | 816 | 2354 |
| | 5:30 PM | 8 | 272 | 4 | 0 | 284 | 4 | 5 | 10 | 0 | 19 | 14 | 324 | 18 | 0 | 356 | 9 | 3 | 5 | 0 | 17 | 676 | 1902 |
| | 5:45 PM | 2 | 176 | 6 | 0 | 184 | 5 | 3 | 11 | 0 | 19 | 9 | 252 | 10 | 0 | 271 | 5 | 1 | 1 | 0 | 7 | 481 | 1559 |
| | 6:00 PM | 2 | 177 | 2 | 0 | 181 | 3 | 6 | 5 | 0 | 14 | 8 | 160 | 2 | 0 | 170 | 5 | 8 | 3 | 0 | 16 | 381 | 1389 |
| | 6:15 PM | 3 | 145 | 2 | 0 | 150 | 0 | 2 | 3 | 0 | 5 | 6 | 187 | 8 | 0 | 201 | 2 | 5 | 1 | 0 | 8 | 364 | |
| | 6:30 PM | 6 | 120 | 5 | 0 | 131 | 5 | 4 | 2 | 0 | 11 | 8 | 165 | 6 | 0 | 179 | 5 | 5 | 2 | 0 | 12 | 333 | |
| | 6:45 PM | 3 | 115 | 0 | 0 | 118 | 2 | 4 | 8 | 0 | 14 | 8 | 146 | 6 | 1 | 161 | 4 | 8 | 6 | 0 | 18 | 311 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Totals** | | 130 | 8717 | 86 | 3 | 8936 | 133 | 150 | 281 | 0 | 564 | 363 | 8924 | 244 | 7 | 9538 | 210 | 189 | 108 | 0 | 507 | 19545 | |

**Peak Hour Automobile Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| **AM** | 7:00 AM | 4 | 1091 | 12 | 0 | 1107 | 14 | 12 | 34 | 0 | 60 | 38 | 894 | 8 | 0 | 940 | 30 | 27 | 20 | 0 | 77 | 2184 |
| **MD** | 11:30 AM | 3 | 471 | 4 | 0 | 478 | 4 | 11 | 21 | 0 | 36 | 19 | 446 | 11 | 1 | 477 | 12 | 12 | 2 | 0 | 26 | 1017 |
| **PM** | 4:30 PM | 30 | 1091 | 8 | 0 | 1129 | 33 | 24 | 31 | 0 | 88 | 53 | 1495 | 71 | 0 | 1619 | 22 | 25 | 12 | 0 | 59 | 2895 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 7 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Single Unit (SU) Truck & Bus Data*

**Single Unit (SU) Trucks & Buses**



### *CTH F and Lindsay Road*

**15-Minute Single Unit (SU) Truck & Bus Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM Peak Period | 6:00 AM | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 21 | 136 |
| | 6:15 AM | 0 | 16 | 0 | 0 | 16 | 2 | 0 | 0 | 0 | 2 | 1 | 10 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 29 | 152 |
| | 6:30 AM | 0 | 16 | 1 | 0 | 17 | 0 | 0 | 3 | 0 | 3 | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 37 | 164 |
| | 6:45 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 49 | 163 |
| | 7:00 AM | 0 | 25 | 0 | 0 | 25 | 2 | 0 | 0 | 0 | 2 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 37 | 150 |
| | 7:15 AM | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 41 | 156 |
| | 7:30 AM | 0 | 16 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 17 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 36 | 163 |
| | 7:45 AM | 0 | 17 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 36 | 177 |
| | 8:00 AM | 0 | 12 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 1 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 43 | 190 |
| | 8:15 AM | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 1 | 0 | 1 | 1 | 18 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 48 | 184 |
| | 8:30 AM | 0 | 10 | 0 | 0 | 10 | 1 | 0 | 1 | 0 | 2 | 1 | 37 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 50 | 167 |
| | 8:45 AM | 0 | 30 | 0 | 0 | 30 | 1 | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 0 | 16 | 1 | 1 | 0 | 0 | 2 | 49 | 155 |
| | 9:00 AM | 1 | 11 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 37 | 140 |
| | 9:15 AM | 0 | 15 | 1 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 31 | 153 |
| | 9:30 AM | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 38 | 180 |
| | 9:45 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 0 | 14 | 0 | 0 | 14 | 1 | 0 | 0 | 0 | 1 | 34 | 192 |
| Midday Peak Period | 10:00 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 2 | 0 | 3 | 2 | 22 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 50 | 207 |
| | 10:15 AM | 0 | 32 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 1 | 0 | 25 | 0 | 1 | 0 | 0 | 1 | 58 | 202 |
| | 10:30 AM | 0 | 21 | 0 | 0 | 21 | 0 | 1 | 1 | 0 | 2 | 1 | 26 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 50 | 187 |
| | 10:45 AM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 19 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 49 | 177 |
| | 11:00 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 1 | 0 | 2 | 1 | 19 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 45 | 176 |
| | 11:15 AM | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 1 | 0 | 2 | 2 | 19 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 43 | 185 |
| | 11:30 AM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 40 | 192 |
| | 11:45 AM | 0 | 19 | 0 | 0 | 19 | 2 | 0 | 0 | 0 | 2 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 48 | 206 |
| | 12:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 54 | 224 |
| | 12:15 PM | 0 | 28 | 1 | 0 | 29 | 1 | 0 | 2 | 0 | 3 | 1 | 17 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 50 | 223 |
| | 12:30 PM | 0 | 23 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 0 | 0 | 29 | 0 | 2 | 0 | 0 | 2 | 54 | 213 |
| | 12:45 PM | 0 | 38 | 0 | 0 | 38 | 1 | 1 | 0 | 0 | 2 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 66 | 203 |
| | 1:00 PM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 1 | 0 | 1 | 2 | 21 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 53 | 182 |
| | 1:15 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 1 | 0 | 1 | 1 | 30 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 40 | 186 |
| | 1:30 PM | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 44 | 205 |
| | 1:45 PM | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 45 | 202 |
| PM Peak Period | 2:00 PM | 0 | 28 | 1 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 57 | 201 |
| | 2:15 PM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 3 | 0 | 3 | 1 | 25 | 0 | 0 | 26 | 0 | 1 | 0 | 0 | 1 | 59 | 179 |
| | 2:30 PM | 0 | 22 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 41 | 156 |
| | 2:45 PM | 0 | 18 | 1 | 0 | 19 | 1 | 0 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 0 | 0 | 1 | 44 | 149 |
| | 3:00 PM | 0 | 17 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 1 | 15 | 0 | 0 | 16 | 0 | 0 | 1 | 0 | 1 | 35 | 132 |
| | 3:15 PM | 1 | 15 | 1 | 0 | 17 | 0 | 0 | 1 | 0 | 1 | 2 | 15 | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 36 | 129 |
| | 3:30 PM | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 1 | 0 | 1 | 1 | 10 | 0 | 0 | 11 | 0 | 1 | 0 | 0 | 1 | 34 | 128 |
| | 3:45 PM | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 2 | 11 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 27 | 121 |
| | 4:00 PM | 0 | 12 | 0 | 0 | 12 | 0 | 1 | 0 | 0 | 1 | 0 | 18 | 0 | 0 | 18 | 0 | 1 | 0 | 0 | 1 | 32 | 111 |
| | 4:15 PM | 0 | 16 | 1 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 3 | 14 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 35 | 92 |
| | 4:30 PM | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 1 | 0 | 1 | 27 | 95 |
| | 4:45 PM | 0 | 8 | 0 | 0 | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 17 | 87 |
| | 5:00 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 13 | 88 |
| | 5:15 PM | 0 | 18 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 1 | 1 | 17 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 1 | 38 | 92 |
| | 5:30 PM | 0 | 7 | 1 | 0 | 8 | 1 | 0 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 19 | 65 |
| | 5:45 PM | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 18 | 54 |
| | 6:00 PM | 1 | 7 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 17 | 42 |
| | 6:15 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 6:30 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | |
| | 6:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 4 | 933 | 11 | 0 | 948 | 17 | 9 | 23 | 0 | 49 | 39 | 924 | 3 | 0 | 966 | 4 | 10 | 2 | 0 | 16 | 1979 | |

**Peak Hour Single Unit (SU) Truck & Buses Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| AM | 7:00 AM | 0 | 85 | 1 | 0 | 86 | 2 | 1 | 0 | 0 | 3 | 3 | 57 | 0 | 0 | 60 | 0 | 1 | 0 | 0 | 1 | 150 |
| MD | 11:30 AM | 0 | 91 | 1 | 0 | 92 | 3 | 0 | 4 | 0 | 7 | 2 | 91 | 0 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 192 |
| PM | 4:30 PM | 0 | 43 | 0 | 0 | 43 | 1 | 1 | 0 | 0 | 2 | 1 | 46 | 1 | 0 | 48 | 1 | 0 | 1 | 0 | 2 | 95 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 8 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Semi-Truck Data*

**Semi-Trucks**



### *CTH F and Lindsay Road*

**15-Minute Semi-Truck Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| *AM Peak Period* | 6:00 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 11 | 45 |
| | 6:15 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 12 | 42 |
| | 6:30 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 14 | 37 |
| | 6:45 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 35 |
| | 7:00 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 47 |
| | 7:15 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 53 |
| | 7:30 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 12 | 61 |
| | 7:45 AM | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 20 | 65 |
| | 8:00 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 14 | 53 |
| | 8:15 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | 54 |
| | 8:30 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 16 | 45 |
| | 8:45 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 45 |
| | 9:00 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | 51 |
| | 9:15 AM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 57 |
| | 9:30 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 16 | 70 |
| | 9:45 AM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 14 | 68 |
| *Midday Peak Period* | 10:00 AM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 21 | 68 |
| | 10:15 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 19 | 58 |
| | 10:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 14 | 45 |
| | 10:45 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 14 | 40 |
| | 11:00 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 11 | 44 |
| | 11:15 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 43 |
| | 11:30 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 9 | 51 |
| | 11:45 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 18 | 46 |
| | 12:00 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 10 | 38 |
| | 12:15 PM | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 14 | 33 |
| | 12:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 27 |
| | 12:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 31 |
| | 1:00 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 28 |
| | 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 42 |
| | 1:30 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 8 | 44 |
| | 1:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 7 | 44 |
| *PM Peak Period* | 2:00 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 19 | 45 |
| | 2:15 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 37 |
| | 2:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 8 | 33 |
| | 2:45 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 32 |
| | 3:00 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 11 | 35 |
| | 3:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 6 | 42 |
| | 3:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 7 | 49 |
| | 3:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 11 | 49 |
| | 4:00 PM | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 18 | 45 |
| | 4:15 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 13 | 32 |
| | 4:30 PM | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 7 | 23 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 | 21 |
| | 5:00 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 26 |
| | 5:15 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 25 |
| | 5:30 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 25 |
| | 5:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 12 | 23 |
| | 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 16 |
| | 6:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | |
| | 6:30 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| | 6:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Totals** | | 0 | 226 | 2 | 0 | 228 | 0 | 0 | 2 | 0 | 2 | 4 | 307 | 0 | 0 | 311 | 0 | 0 | 0 | 0 | 0 | 541 | |

**Peak Hour Semi-Truck Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| **AM** | 7:00 AM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 1 | 34 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 61 |
| **MD** | 11:30 AM | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 33 |
| **PM** | 4:30 PM | 0 | 21 | 1 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 25 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 49 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 9 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Heavy Vehicle Data*

**Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)**



### *CTH F and Lindsay Road*

**15-Minute Heavy Vehicle Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM Peak Period | 6:00 AM | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 32 | 181 |
| | 6:15 AM | 0 | 23 | 0 | 0 | 23 | 2 | 0 | 0 | 0 | 2 | 1 | 15 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 41 | 194 |
| | 6:30 AM | 0 | 22 | 1 | 0 | 23 | 0 | 0 | 3 | 0 | 3 | 1 | 24 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 51 | 201 |
| | 6:45 AM | 0 | 24 | 0 | 0 | 24 | 1 | 0 | 1 | 0 | 2 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 57 | 198 |
| | 7:00 AM | 0 | 30 | 0 | 0 | 30 | 2 | 0 | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 45 | 197 |
| | 7:15 AM | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 48 | 209 |
| | 7:30 AM | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 2 | 26 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 48 | 224 |
| | 7:45 AM | 0 | 28 | 0 | 0 | 28 | 0 | 1 | 0 | 0 | 1 | 2 | 24 | 0 | 0 | 26 | 0 | 1 | 0 | 0 | 1 | 56 | 242 |
| | 8:00 AM | 0 | 18 | 0 | 0 | 18 | 1 | 0 | 1 | 0 | 2 | 0 | 37 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 57 | 243 |
| | 8:15 AM | 1 | 32 | 0 | 0 | 33 | 0 | 0 | 1 | 0 | 1 | 1 | 28 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 63 | 238 |
| | 8:30 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 1 | 46 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 66 | 212 |
| | 8:45 AM | 0 | 35 | 0 | 0 | 35 | 1 | 0 | 0 | 0 | 1 | 0 | 19 | 0 | 0 | 19 | 1 | 1 | 0 | 0 | 2 | 57 | 200 |
| | 9:00 AM | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 52 | 191 |
| | 9:15 AM | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 37 | 210 |
| | 9:30 AM | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 54 | 250 |
| | 9:45 AM | 0 | 21 | 0 | 0 | 21 | 1 | 0 | 1 | 0 | 2 | 0 | 24 | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 48 | 260 |
| Midday Peak Period | 10:00 AM | 0 | 31 | 0 | 0 | 31 | 0 | 1 | 2 | 0 | 3 | 2 | 35 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 71 | 275 |
| | 10:15 AM | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 1 | 0 | 37 | 0 | 1 | 0 | 0 | 1 | 77 | 260 |
| | 10:30 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 1 | 0 | 2 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 64 | 232 |
| | 10:45 AM | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 2 | 25 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 63 | 217 |
| | 11:00 AM | 0 | 30 | 0 | 0 | 30 | 0 | 1 | 1 | 0 | 2 | 1 | 23 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 56 | 220 |
| | 11:15 AM | 0 | 22 | 0 | 0 | 22 | 1 | 0 | 1 | 0 | 2 | 2 | 23 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 49 | 228 |
| | 11:30 AM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 1 | 22 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 49 | 243 |
| | 11:45 AM | 0 | 25 | 0 | 0 | 25 | 2 | 0 | 0 | 0 | 2 | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 66 | 252 |
| | 12:00 PM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 0 | 38 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 64 | 262 |
| | 12:15 PM | 0 | 37 | 1 | 0 | 38 | 1 | 0 | 2 | 0 | 3 | 1 | 22 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 64 | 256 |
| | 12:30 PM | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 1 | 31 | 0 | 0 | 32 | 0 | 2 | 0 | 0 | 2 | 58 | 240 |
| | 12:45 PM | 0 | 43 | 0 | 0 | 43 | 1 | 1 | 0 | 0 | 2 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 76 | 234 |
| | 1:00 PM | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 1 | 0 | 1 | 2 | 24 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 58 | 210 |
| | 1:15 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 1 | 0 | 1 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 48 | 228 |
| | 1:30 PM | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 52 | 249 |
| | 1:45 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 52 | 246 |
| PM Peak Period | 2:00 PM | 0 | 36 | 1 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 76 | 246 |
| | 2:15 PM | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 3 | 0 | 3 | 1 | 30 | 0 | 0 | 31 | 0 | 1 | 0 | 0 | 1 | 69 | 216 |
| | 2:30 PM | 0 | 23 | 1 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 49 | 189 |
| | 2:45 PM | 0 | 22 | 1 | 0 | 23 | 1 | 0 | 0 | 0 | 1 | 0 | 27 | 0 | 0 | 27 | 0 | 1 | 0 | 0 | 1 | 52 | 181 |
| | 3:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 1 | 0 | 0 | 1 | 1 | 21 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 46 | 167 |
| | 3:15 PM | 1 | 16 | 1 | 0 | 18 | 0 | 0 | 1 | 0 | 1 | 2 | 20 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 42 | 171 |
| | 3:30 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 41 | 177 |
| | 3:45 PM | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 3 | 20 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 38 | 170 |
| | 4:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 1 | 1 | 0 | 2 | 0 | 25 | 0 | 0 | 25 | 0 | 1 | 0 | 0 | 1 | 50 | 156 |
| | 4:15 PM | 0 | 22 | 1 | 0 | 23 | 0 | 1 | 0 | 0 | 1 | 3 | 21 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 48 | 124 |
| | 4:30 PM | 0 | 17 | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 1 | 0 | 1 | 34 | 118 |
| | 4:45 PM | 0 | 9 | 1 | 0 | 10 | 0 | 1 | 0 | 0 | 1 | 0 | 12 | 1 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 24 | 108 |
| | 5:00 PM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 18 | 114 |
| | 5:15 PM | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 1 | 19 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 42 | 117 |
| | 5:30 PM | 0 | 10 | 1 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 1 | 11 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 24 | 90 |
| | 5:45 PM | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 2 | 12 | 0 | 0 | 14 | 0 | 1 | 0 | 0 | 1 | 30 | 77 |
| | 6:00 PM | 1 | 7 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 21 | 58 |
| | 6:15 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | |
| | 6:30 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 6:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 4 | 1159 | 13 | 0 | 1176 | 17 | 9 | 25 | 0 | 51 | 43 | 1231 | 3 | 0 | 1277 | 4 | 10 | 2 | 0 | 16 | 2520 | |

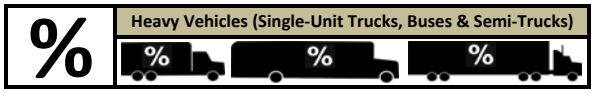
**Peak Hour Heavy Vehicle Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| AM | 7:00 AM | 0 | 107 | 1 | 0 | 108 | 2 | 1 | 0 | 0 | 3 | 4 | 81 | 0 | 0 | 85 | 0 | 1 | 0 | 0 | 1 | 197 |
| MD | 11:30 AM | 0 | 112 | 1 | 0 | 113 | 3 | 0 | 4 | 0 | 7 | 2 | 121 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 243 |
| PM | 4:30 PM | 0 | 53 | 2 | 0 | 55 | 1 | 1 | 0 | 0 | 2 | 1 | 57 | 1 | 0 | 59 | 1 | 0 | 1 | 0 | 2 | 118 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 10 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Heavy Vehicle Percentages*




### *CTH F and Lindsay Road*

**15-Minute Heavy Vehicle Percentages**

| | 15-Minute Time Period | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Heavy Vehicle | Hourly Heavy Vehicle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Percent | Percent |
| AM Peak Period | 6:00 AM | 0.0 | 12.7 | 0.0 | 0.0 | 12.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.5 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.4 | 10.8 |
| | 6:15 AM | 0.0 | 12.3 | 0.0 | 0.0 | 12.2 | 40.0 | 0.0 | 0.0 | 0.0 | 20.0 | 8.3 | 11.2 | 0.0 | 0.0 | 10.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.4 | 10.2 |
| | 6:30 AM | 0.0 | 9.6 | 25.0 | 0.0 | 9.8 | 0.0 | 0.0 | 42.9 | 0.0 | 37.5 | 6.2 | 10.6 | 0.0 | 0.0 | 10.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 9.5 |
| | 6:45 AM | 0.0 | 9.5 | 0.0 | 0.0 | 9.4 | 50.0 | 0.0 | 50.0 | 0.0 | 28.6 | 0.0 | 12.8 | 0.0 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 8.7 |
| | 7:00 AM | 0.0 | 10.5 | 0.0 | 0.0 | 10.4 | 66.7 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 7.1 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.9 | 8.3 |
| | 7:15 AM | 0.0 | 10.0 | 0.0 | 0.0 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.1 | 8.8 |
| | 7:30 AM | 0.0 | 6.1 | 25.0 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.2 | 9.4 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 10.0 |
| | 7:45 AM | 0.0 | 9.3 | 0.0 | 0.0 | 9.2 | 0.0 | 25.0 | 0.0 | 0.0 | 4.5 | 13.3 | 8.9 | 0.0 | 0.0 | 9.1 | 0.0 | 12.5 | 0.0 | 0.0 | 4.0 | 8.8 | 12.1 |
| | 8:00 AM | 0.0 | 6.7 | 0.0 | 0.0 | 6.6 | 25.0 | 0.0 | 12.5 | 0.0 | 13.3 | 0.0 | 18.2 | 0.0 | 0.0 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.3 | 14.1 |
| | 8:15 AM | 100.0 | 14.3 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 12.5 | 0.0 | 7.1 | 16.7 | 14.9 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.9 | 15.7 |
| | 8:30 AM | 0.0 | 8.4 | 0.0 | 0.0 | 8.4 | 33.3 | 0.0 | 25.0 | 0.0 | 28.6 | 25.0 | 26.6 | 0.0 | 0.0 | 26.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.4 | 15.7 |
| | 8:45 AM | 0.0 | 17.6 | 0.0 | 0.0 | 17.4 | 50.0 | 0.0 | 0.0 | 0.0 | 8.3 | 0.0 | 13.3 | 0.0 | 0.0 | 12.9 | 50.0 | 33.3 | 0.0 | 0.0 | 33.3 | 15.6 | 16.2 |
| | 9:00 AM | 50.0 | 12.0 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 50.0 | 24.1 | 0.0 | 0.0 | 24.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 16.1 |
| | 9:15 AM | 0.0 | 13.1 | 100.0 | 0.0 | 13.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.4 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 17.9 |
| | 9:30 AM | 0.0 | 19.0 | 0.0 | 0.0 | 18.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 23.1 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.1 | 21.6 |
| | 9:45 AM | 0.0 | 12.1 | 0.0 | 0.0 | 11.9 | 50.0 | 0.0 | 25.0 | 0.0 | 33.3 | 0.0 | 21.1 | 0.0 | 0.0 | 20.0 | 12.5 | 0.0 | 0.0 | 0.0 | 8.3 | 15.3 | 22.1 |
| Midday Peak Period | 10:00 AM | 0.0 | 21.7 | 0.0 | 0.0 | 21.7 | 0.0 | 25.0 | 28.6 | 0.0 | 25.0 | 33.3 | 28.7 | 0.0 | 0.0 | 28.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.7 | 24.3 |
| | 10:15 AM | 0.0 | 27.3 | 0.0 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.6 | 25.0 | 0.0 | 32.7 | 0.0 | 33.3 | 0.0 | 0.0 | 20.0 | 28.4 | 23.4 |
| | 10:30 AM | 0.0 | 18.3 | 0.0 | 0.0 | 17.8 | 0.0 | 50.0 | 20.0 | 0.0 | 18.2 | 16.7 | 26.0 | 0.0 | 0.0 | 25.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.2 | 20.9 |
| | 10:45 AM | 0.0 | 27.5 | 0.0 | 0.0 | 27.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 22.9 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 19.5 |
| | 11:00 AM | 0.0 | 25.6 | 0.0 | 0.0 | 25.6 | 0.0 | 25.0 | 16.7 | 0.0 | 14.3 | 12.5 | 19.0 | 0.0 | 0.0 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.8 | 19.1 |
| | 11:15 AM | 0.0 | 18.2 | 0.0 | 0.0 | 17.5 | 100.0 | 0.0 | 16.7 | 0.0 | 20.0 | 50.0 | 19.2 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.1 | 18.7 |
| | 11:30 AM | 0.0 | 16.1 | 0.0 | 0.0 | 15.9 | 0.0 | 0.0 | 11.1 | 0.0 | 8.3 | 20.0 | 17.7 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 19.3 |
| | 11:45 AM | 0.0 | 19.7 | 0.0 | 0.0 | 19.4 | 100.0 | 0.0 | 0.0 | 0.0 | 25.0 | 0.0 | 24.8 | 0.0 | 0.0 | 23.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.3 | 20.0 |
| | 12:00 PM | 0.0 | 17.0 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 | 25.0 | 0.0 | 8.3 | 0.0 | 24.4 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.2 | 21.1 |
| | 12:15 PM | 0.0 | 24.0 | 33.3 | 0.0 | 24.2 | 50.0 | 0.0 | 28.6 | 0.0 | 27.3 | 33.3 | 16.9 | 0.0 | 0.0 | 17.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.6 | 21.3 |
| | 12:30 PM | 0.0 | 18.7 | 0.0 | 0.0 | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.3 | 21.4 | 0.0 | 0.0 | 21.5 | 0.0 | 33.3 | 0.0 | 0.0 | 25.0 | 19.1 | 20.6 |
| | 12:45 PM | 0.0 | 27.9 | 0.0 | 0.0 | 27.2 | 100.0 | 20.0 | 0.0 | 0.0 | 25.0 | 0.0 | 27.7 | 0.0 | 0.0 | 25.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.7 | 20.1 |
| | 1:00 PM | 0.0 | 21.4 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 25.0 | 0.0 | 16.7 | 40.0 | 19.7 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 18.4 |
| | 1:15 PM | 0.0 | 8.4 | 0.0 | 0.0 | 8.1 | 0.0 | 0.0 | 50.0 | 0.0 | 10.0 | 25.0 | 25.0 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 18.7 |
| | 1:30 PM | 0.0 | 22.6 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 14.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 19.0 |
| | 1:45 PM | 0.0 | 19.6 | 0.0 | 0.0 | 19.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.1 | 0.0 | 0.0 | 20.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.8 | 16.8 |
| PM Peak Period | 2:00 PM | 0.0 | 21.1 | 100.0 | 0.0 | 21.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.7 | 21.7 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.7 | 15.8 |
| | 2:15 PM | 0.0 | 22.2 | 0.0 | 0.0 | 21.7 | 0.0 | 0.0 | 37.5 | 0.0 | 25.0 | 20.0 | 16.1 | 0.0 | 0.0 | 15.9 | 0.0 | 100.0 | 0.0 | 0.0 | 50.0 | 18.9 | 13.3 |
| | 2:30 PM | 0.0 | 11.4 | 25.0 | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.6 | 0.0 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 11.2 |
| | 2:45 PM | 0.0 | 14.0 | 50.0 | 0.0 | 13.9 | 50.0 | 0.0 | 0.0 | 0.0 | 11.1 | 0.0 | 14.6 | 0.0 | 0.0 | 13.9 | 0.0 | 33.3 | 0.0 | 0.0 | 14.3 | 13.9 | 10.3 |
| | 3:00 PM | 0.0 | 11.0 | 0.0 | 0.0 | 10.7 | 0.0 | 33.3 | 0.0 | 0.0 | 7.7 | 11.1 | 10.8 | 0.0 | 0.0 | 10.6 | 0.0 | 0.0 | 50.0 | 0.0 | 16.7 | 10.6 | 8.8 |
| | 3:15 PM | 50.0 | 9.6 | 50.0 | 0.0 | 10.6 | 0.0 | 0.0 | 25.0 | 0.0 | 14.3 | 22.2 | 8.8 | 33.3 | 0.0 | 9.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.8 | 8.2 |
| | 3:30 PM | 0.0 | 9.3 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 | 12.5 | 0.0 | 7.1 | 16.7 | 6.7 | 0.0 | 0.0 | 6.6 | 0.0 | 25.0 | 0.0 | 0.0 | 10.0 | 7.8 | 7.6 |
| | 3:45 PM | 0.0 | 8.1 | 0.0 | 0.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.9 | 6.9 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 6.7 |
| | 4:00 PM | 0.0 | 7.5 | 0.0 | 0.0 | 7.3 | 0.0 | 25.0 | 33.3 | 0.0 | 20.0 | 0.0 | 8.9 | 0.0 | 0.0 | 8.4 | 0.0 | 25.0 | 0.0 | 0.0 | 9.1 | 8.0 | 5.7 |
| | 4:15 PM | 0.0 | 7.0 | 25.0 | 0.0 | 7.1 | 0.0 | 25.0 | 0.0 | 0.0 | 5.6 | 23.1 | 6.8 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 4.4 |
| | 4:30 PM | 0.0 | 6.1 | 33.3 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 50.0 | 0.0 | 12.5 | 4.7 | 3.9 |
| | 4:45 PM | 0.0 | 3.5 | 100.0 | 0.0 | 3.7 | 0.0 | 11.1 | 0.0 | 0.0 | 3.6 | 0.0 | 3.4 | 5.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 3.6 |
| | 5:00 PM | 0.0 | 2.4 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 4.1 |
| | 5:15 PM | 0.0 | 6.3 | 0.0 | 0.0 | 6.0 | 10.0 | 0.0 | 0.0 | 0.0 | 5.3 | 5.3 | 4.3 | 0.0 | 0.0 | 4.1 | 11.1 | 0.0 | 0.0 | 0.0 | 5.0 | 4.9 | 4.7 |
| | 5:30 PM | 0.0 | 3.5 | 20.0 | 0.0 | 3.7 | 20.0 | 0.0 | 0.0 | 0.0 | 5.0 | 6.7 | 3.3 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 4.5 |
| | 5:45 PM | 0.0 | 7.9 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 4.5 | 0.0 | 0.0 | 4.9 | 0.0 | 50.0 | 0.0 | 0.0 | 12.5 | 5.9 | 4.7 |
| | 6:00 PM | 33.3 | 3.8 | 33.3 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 6.1 | 16.7 | 0.0 | 0.0 | 0.0 | 5.9 | 5.2 | 4.0 |
| | 6:15 PM | 0.0 | 3.3 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | |
| | 6:30 PM | 0.0 | 4.8 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.1 | 2.4 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | |
| | 6:45 PM | 0.0 | 1.7 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.1 | 5.2 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | |
| | 7:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Totals | | 3.0 | 11.7 | 13.1 | 0.0 | 11.6 | 11.3 | 5.7 | 8.2 | 0.0 | 8.3 | 10.6 | 12.1 | 1.2 | 0.0 | 11.8 | 1.9 | 5.0 | 1.8 | 0.0 | 3.1 | 11.4 | |

**Peak Hour Heavy Vehicle Percentages Summary**

| | Hourly Time Period | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Hourly Heavy Vehicle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Percent |
| AM | 7:00 AM | 0.0 | 8.9 | 7.7 | 0.0 | 8.9 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 9.5 | 8.3 | 0.0 | 0.0 | 8.3 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 8.3 |
| MD | 11:30 AM | 0.0 | 19.2 | 20.0 | 0.0 | 19.1 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 21.3 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.3 |
| PM | 4:30 PM | 0.0 | 4.6 | 20.0 | 0.0 | 4.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.7 | 1.4 | 0.0 | 3.5 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.9 |

# Intersection Traffic Volume Report

| Count Basics | | | Page 11 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Pedestrian and Bicyclist Data*

**Pedestrians and Bicyclists**

### *CTH F and Lindsay Road*

**15-Minute Pedestrian and Bicyclist Data**

| | 15-Minute Time Period Start Time | Crossing North Approach CTH F | | | Crossing East Approach Lindsay Road | | | Crossing South Approach CTH F | | | Crossing West Approach Lindsay Road | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | | |
| AM Peak Period | 6:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9:15 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Midday Peak Period | 10:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 10:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 10:45 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 3 |
| | 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 11:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| | 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| | 1:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| PM Peak Period | 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| | 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 7 |
| | 4:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 6 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 3 |
| | 5:00 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:45 PM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 0 | 9 | 9 | 0 | 1 | 1 | 0 | 8 | 8 | 0 | 0 | 0 | 18 | |

**Special Pedestrians**

| Pedestrian Type | None | 1 or 2 | A Few | Several | Many | Unknown |
|---|---|---|---|---|---|---|
| Pre-school Children | x | | | | | |
| Elementry School Age Children | x | | | | | |
| Visually Impaired (white cane/helper dog) | x | | | | | |
| Elderly/Disabled (except wheelchairs) | x | | | | | |
| Wheelchairs/Electric Scooters | x | | | | | |
| Other (None) | x | | | | | |

# APPENDIX C

## EXISTING TRAFFIC CONTROL ANALYSIS OUTPUTS

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.949 | | | 0.969 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Flt Permitted | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 5% | 5% | 5% | 8% | 8% | 8% | 9% | 9% | 9% |
| Adj. Flow (vph) | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 43 | 16 | 1304 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 88 | 0 | 0 | 70 | 0 | 11 | 1060 | 43 | 16 | 1304 | 5 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Vol, veh/h | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 250 | - | 225 | 250 | - | 225 |
| Veh in Median Storage, # | - | 2 | - | - | 2 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 1 | 1 | 5 | 5 | 5 | 8 | 8 | 8 | 9 | 9 | 9 |
| Mvmt Flow | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 43 | 16 | 1304 | 5 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1896 | 2461 | 652 | 1783 | 2423 | 530 | 1309 | 0 | 0 | 1103 | 0 | 0 |
| Stage 1 | 1336 | 1336 | - | 1082 | 1082 | - | - | - | - | - | - | - |
| Stage 2 | 560 | 1125 | - | 701 | 1341 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.52 | 6.52 | 6.92 | 7.6 | 6.6 | 7 | 4.26 | - | - | 4.28 | - | - |
| Critical Hdwy Stg 1 | 6.52 | 5.52 | - | 6.6 | 5.6 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.52 | 5.52 | - | 6.6 | 5.6 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.51 | 4.01 | 3.31 | 3.55 | 4.05 | 3.35 | 2.28 | - | - | 2.29 | - | - |
| Pot Cap-1 Maneuver | 43 | ~ 31 | 413 | 50 | 31 | 486 | 494 | - | - | 589 | - | - |
| Stage 1 | 163 | 222 | - | 227 | 286 | - | - | - | - | - | - | - |
| Stage 2 | 483 | 281 | - | 389 | 214 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 37 | ~ 30 | 413 | ~ 37 | 30 | 486 | 494 | - | - | 589 | - | - |
| Mov Cap-2 Maneuver | 143 | 158 | - | 168 | 154 | - | - | - | - | - | - | - |
| Stage 1 | 159 | 216 | - | 222 | 280 | - | - | - | - | - | - | - |
| Stage 2 | 430 | 275 | - | 296 | 208 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 36.4 | 34 | 0.1 | 0.1 |
| HCM LOS | E | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 494 | - | - | 199 | 193 | 589 | - | - |
| HCM Lane V/C Ratio | 0.022 | - | - | 0.437 | 0.366 | 0.028 | - | - |
| HCM Control Delay (s) | 12.5 | - | - | 36.4 | 34 | 11.3 | - | - |
| HCM Lane LOS | B | - | - | E | D | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 2 | 1.6 | 0.1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.948 | | | 0.947 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Flt Permitted | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 3% | 3% | 3% | 2% | 2% | 2% | 4% | 4% | 4% | 5% | 5% | 5% |
| Adj. Flow (vph) | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 63 | 11 | 1301 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 73 | 0 | 0 | 102 | 0 | 80 | 1761 | 63 | 11 | 1301 | 34 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized





| Intersection | |
|---|---|
| Int Delay, s/veh | 9.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Vol, veh/h | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 250 | - | 225 | 250 | - | 225 |
| Veh in Median Storage, # | - | 2 | - | - | 2 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 | 5 |
| Mvmt Flow | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 63 | 11 | 1301 | 34 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2378 | 3307 | 651 | 2608 | 3278 | 881 | 1335 | 0 | 0 | 1824 | 0 | 0 |
| Stage 1 | 1323 | 1323 | - | 1921 | 1921 | - | - | - | - | - | - | - |
| Stage 2 | 1055 | 1984 | - | 687 | 1357 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.56 | 6.56 | 6.96 | 7.54 | 6.54 | 6.94 | 4.18 | - | - | 4.2 | - | - |
| Critical Hdwy Stg 1 | 6.56 | 5.56 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.56 | 5.56 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.53 | 4.03 | 3.33 | 3.52 | 4.02 | 3.32 | 2.24 | - | - | 2.25 | - | - |
| Pot Cap-1 Maneuver | 18 | ~ 8 | 409 | ~ 12 | ~ 9 | 290 | 502 | - | - | 319 | - | - |
| Stage 1 | 163 | 222 | - | 69 | 113 | - | - | - | - | - | - | - |
| Stage 2 | 239 | 104 | - | 403 | 215 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 9 | ~ 6 | 409 | ~ 6 | ~ 7 | 290 | 502 | - | - | 319 | - | - |
| Mov Cap-2 Maneuver | 80 | 67 | - | 53 | 71 | - | - | - | - | - | - | - |
| Stage 1 | 137 | 214 | - | 58 | 95 | - | - | - | - | - | - | - |
| Stage 2 | 122 | 87 | - | 314 | 208 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 96.3 | 239 | 0.6 | 0.1 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 502 | - | - | 105 | 87 | 319 | - | - |
| HCM Lane V/C Ratio | 0.158 | - | - | 0.703 | 1.176 | 0.036 | - | - |
| HCM Control Delay (s) | 13.5 | - | - | 96.3 | 239 | 16.7 | - | - |
| HCM Lane LOS | B | - | - | F | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 3.7 | 7.2 | 0.1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

# APPENDIX D

## TRAFFIC SIGNAL WARRANT DESCRIPTIONS

***Traffic Signal Warrant Descriptions***

***Warrant 1, Eight Hour Vehicular Volume*** *states that a traffic signal may be considered if one of the following conditions exists for at least eight hours of an average day:*

A. *The vehicles per hour given on the major street meet or exceed 500 and the vehicles per hour on the minor street meet or exceed 150; or*

B. *The vehicles per hour given on the major street meet or exceed 750 and the vehicles per hour on the minor street meet or exceed 75.*

*Or if the following two conditions exist for eight hours of an average day:*

A. *The vehicles per hour on the major street and minor street meet or exceed 80% of the values stated in A (400 major, 120 minor); and*

B. *The vehicles per hour on the major street and minor street meet or exceed 80% of the values stated in B (600 major, 60 minor).*

***Warrant 2, Four Hour Volume*** *is satisfied if during any four hours of an average day the major street and minor street volumes fall above the 100 percent four-hour curves shown on the graph in the Appendix of this report.*

***Warrant 3, Peak Hour Volume*** *is satisfied if during any hour of an average day the major street and minor street volumes fall above the 100 percent peak hour curves shown on the graph in the Appendix of this report. Note that this signal warrant is typically applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.*

***Warrant 4, Pedestrian Volume*** *states that a traffic signal may be considered at an intersection or midblock crossing if one of the following conditions exists for an average day:*

A. *For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in the Appendix of this report; or*

B. *For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in the Appendix of this report.*

***Warrant 5, School Crossing*** *is satisfied if during any hour of an average day there are inadequate gaps in the traffic stream on the major street as related to the number and size of groups of school crossing children that the number of gaps during the duration when the children are crossing is less than the number of minutes in the same period and there are a minimum of 20 students during the highest crossing hour.*

***Warrant 6, Coordinated Signal System*** *is satisfied if the adjacent traffic signals are so far apart that they do not provide adequate vehicle platooning (one-way or two-way streets), and the existing and proposed traffic signals would collectively provide a progressive operation (two-way streets). This warrant shall not be applied at locations where the nearest traffic signal on the major street is less than 300 feet.*

***Warrant 7, Crash Experience*** *states that a traffic signal may be considered if an engineering study finds that all of the following criteria are met:*

A. *Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and*
B. *Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and*
C. *For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Warrant 1 Condition A, or the vph in both of the 80 percent columns of Warrant 1 Condition B exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection.*

***Warrant 8, Roadway Network*** *is satisfied if the common intersection of two or more major routes meets one or both of the following criteria:*

A. *The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or*

B. *The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).*

*A major route as used in this signal warrant shall have at least one of the following characteristics:*

A. *It is part of the street or highway system that serves as the principal roadway network for through traffic flow.*

B. *It includes rural or suburban highways outside, entering, or traversing a city.*

C. *It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.*

***Warrant 9, Intersection Near a Grade Crossing*** *is satisfied if none of the previous eight warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal.*

# APPENDIX E

## TRAFFIC SIGNAL CONTROL ANALYSIS OUTPUTS

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.949 | | | 0.969 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Flt Permitted | | 0.892 | | | 0.783 | | 0.169 | | | 0.245 | | |
| Satd. Flow (perm) | 0 | 1592 | 0 | 0 | 1373 | 0 | 297 | 3343 | 1495 | 427 | 3312 | 1482 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 62% | 100% | 100% | 62% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 5% | 5% | 5% | 8% | 8% | 8% | 9% | 9% | 9% |
| Adj. Flow (vph) | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 88 | 0 | 0 | 70 | 0 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 43.9% | 43.9% | | 43.9% | 43.9% | | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | Min | Min | Min | Min | Min | Min |
| v/c Ratio | | 0.26 | | | 0.24 | | 0.06 | 0.48 | 0.03 | 0.06 | 0.60 | 0.00 |
| Control Delay | | 21.3 | | | 21.5 | | 5.7 | 7.2 | 4.9 | 5.5 | 8.5 | 4.7 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 21.3 | | | 21.5 | | 5.7 | 7.2 | 4.9 | 5.5 | 8.5 | 4.7 |
| 90th %ile Green (s) | 11.6 | 11.6 | | 11.6 | 11.6 | | 38.2 | 38.2 | 38.2 | 38.2 | 38.2 | 38.2 |
| 90th %ile Term Code | Gap | Gap | | Hold | Hold | | Hold | Hold | Hold | Gap | Gap | Gap |
| 70th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 |

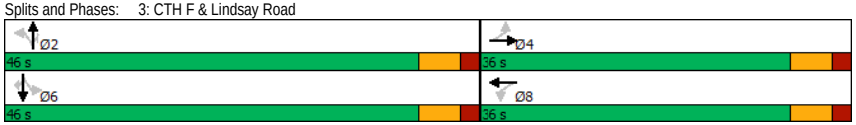




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70th %ile Term Code | Min | Min | | Min | Min | | Hold | Hold | Hold | Gap | Gap | Gap |
| 50th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 26.4 | 26.4 | 26.4 | 26.4 | 26.4 | 26.4 |
| 50th %ile Term Code | Min | Min | | Min | Min | | Hold | Hold | Hold | Gap | Gap | Gap |
| 30th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 |
| 30th %ile Term Code | Min | Min | | Hold | Hold | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| 10th %ile Green (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| 10th %ile Term Code | Skip | Skip | | Skip | Skip | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| Queue Length 50th (ft) | | 21 | | | 17 | | 1 | 91 | 3 | 2 | 125 | 0 |
| Queue Length 95th (ft) | | 64 | | | 55 | | 7 | 141 | 11 | 8 | 195 | 3 |
| Internal Link Dist (ft) | | 536 | | | 588 | | | 721 | | | 667 | |
| Turn Bay Length (ft) | | | | | | | 250 | | 225 | 250 | | 225 |
| Base Capacity (vph) | | 1053 | | | 908 | | 242 | 2725 | 1218 | 348 | 2700 | 1208 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.08 | | | 0.08 | | 0.05 | 0.39 | 0.02 | 0.05 | 0.48 | 0.00 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 82 | |
| Actuated Cycle Length: 49.2 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| 90th %ile Actuated Cycle: 61.8 | |
| 70th %ile Actuated Cycle: 52.1 | |
| 50th %ile Actuated Cycle: 48.4 | |
| 30th %ile Actuated Cycle: 47.9 | |
| 10th %ile Actuated Cycle: 36 | |

Splits and Phases: 3: CTH F & Lindsay Road



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (veh/h) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | 1826 | 1826 | 1826 | 1781 | 1781 | 1781 | 1767 | 1767 | 1767 |
| Adj Flow Rate, veh/h | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 1 | 1 | 1 | 5 | 5 | 5 | 8 | 8 | 8 | 9 | 9 | 9 |
| Cap, veh/h | 142 | 158 | 121 | 245 | 100 | 66 | 262 | 1847 | 824 | 324 | 1832 | 817 |
| Arrive On Green | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Sat Flow, veh/h | 224 | 833 | 634 | 645 | 527 | 347 | 401 | 3385 | 1510 | 490 | 3357 | 1497 |
| Grp Volume(v), veh/h | 88 | 0 | 0 | 70 | 0 | 0 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1691 | 0 | 0 | 1519 | 0 | 0 | 401 | 1692 | 1510 | 490 | 1678 | 1497 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 9.4 | 0.4 | 1.0 | 13.1 | 0.0 |
| Cycle Q Clear(g_c), s | 1.9 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 14.1 | 9.4 | 0.4 | 10.4 | 13.1 | 0.0 |
| Prop In Lane | 0.25 | | 0.37 | 0.54 | | 0.23 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 421 | 0 | 0 | 411 | 0 | 0 | 262 | 1847 | 824 | 324 | 1832 | 817 |
| V/C Ratio(X) | 0.21 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.04 | 0.57 | 0.03 | 0.05 | 0.71 | 0.00 |
| Avail Cap(c_a), veh/h | 1187 | 0 | 0 | 1093 | 0 | 0 | 396 | 2980 | 1329 | 489 | 2956 | 1318 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.7 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 12.9 | 6.8 | 4.8 | 10.3 | 7.7 | 4.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.1 | 1.4 | 0.1 | 0.1 | 2.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.9 | 0.0 | 0.0 | 15.7 | 0.0 | 0.0 | 13.0 | 7.1 | 4.8 | 10.3 | 8.2 | 4.7 |
| LnGrp LOS | B | A | A | B | A | A | B | A | A | B | A | A |
| Approach Vol, veh/h | | 88 | | | 70 | | | 1098 | | | 1323 | |
| Approach Delay, s/veh | | 15.9 | | | 15.7 | | | 7.1 | | | 8.2 | |
| Approach LOS | | B | | | B | | | A | | | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 30.8 | | 14.6 | | 30.8 | | 14.6 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 40.0 | | 30.0 | | 40.0 | | 30.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 16.1 | | 3.9 | | 15.1 | | 3.5 | | | | |
| Green Ext Time (p_c), s | | 7.4 | | 0.4 | | 9.7 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 8.2 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.948 | | | 0.947 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Flt Permitted | | 0.911 | | | 0.860 | | 0.179 | | | 0.093 | | |
| Satd. Flow (perm) | 0 | 1593 | 0 | 0 | 1517 | 0 | 327 | 3471 | 1553 | 168 | 3438 | 1538 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 62% | 100% | 100% | 62% |
| Heavy Vehicles (%) | 3% | 3% | 3% | 2% | 2% | 2% | 4% | 4% | 4% | 5% | 5% | 5% |
| Adj. Flow (vph) | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 73 | 0 | 0 | 102 | 0 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 43.9% | 43.9% | | 43.9% | 43.9% | | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | Min | Min | Min | Min | Min | Min |
| v/c Ratio | | 0.27 | | | 0.40 | | 0.35 | 0.72 | 0.04 | 0.09 | 0.53 | 0.02 |
| Control Delay | | 25.4 | | | 28.1 | | 11.3 | 9.9 | 4.6 | 7.1 | 7.0 | 4.6 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 25.4 | | | 28.1 | | 11.3 | 9.9 | 4.6 | 7.1 | 7.0 | 4.6 |
| 90th %ile Green (s) | 12.8 | 12.8 | | 12.8 | 12.8 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 90th %ile Term Code | Hold | Hold | | Gap | Gap | | Max | Max | Max | Hold | Hold | Hold |
| 70th %ile Green (s) | 10.6 | 10.6 | | 10.6 | 10.6 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |

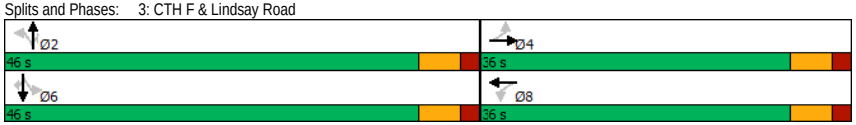




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70th %ile Term Code | Hold | Hold | | Gap | Gap | | Max | Max | Max | Hold | Hold | Hold |
| 50th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 50th %ile Term Code | Min | Min | | Min | Min | | Max | Max | Max | Hold | Hold | Hold |
| 30th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 30th %ile Term Code | Hold | Hold | | Min | Min | | Max | Max | Max | Hold | Hold | Hold |
| 10th %ile Green (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 |
| 10th %ile Term Code | Skip | Skip | | Skip | Skip | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| Queue Length 50th (ft) | | 24 | | | 35 | | 12 | 209 | 4 | 1 | 122 | 2 |
| Queue Length 95th (ft) | | 56 | | | 73 | | 45 | 326 | 14 | 8 | 190 | 9 |
| Internal Link Dist (ft) | | 536 | | | 588 | | | 721 | | | 667 | |
| Turn Bay Length (ft) | | | | | | | 250 | | 225 | 250 | | 225 |
| Base Capacity (vph) | | 765 | | | 728 | | 231 | 2462 | 1101 | 119 | 2438 | 1091 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.10 | | | 0.14 | | 0.35 | 0.72 | 0.04 | 0.09 | 0.53 | 0.02 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 82 | |
| Actuated Cycle Length: 62.5 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| 90th %ile Actuated Cycle: 64.8 | |
| 70th %ile Actuated Cycle: 62.6 | |
| 50th %ile Actuated Cycle: 62 | |
| 30th %ile Actuated Cycle: 62 | |
| 10th %ile Actuated Cycle: 61 | |

Splits and Phases: 3: CTH F & Lindsay Road



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (veh/h) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1841 | 1841 | 1841 | 1826 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 | 5 |
| Cap, veh/h | 111 | 137 | 106 | 141 | 107 | 105 | 289 | 2175 | 970 | 188 | 2158 | 962 |
| Arrive On Green | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Sat Flow, veh/h | 196 | 829 | 637 | 340 | 648 | 637 | 408 | 3497 | 1560 | 256 | 3469 | 1547 |
| Grp Volume(v), veh/h | 73 | 0 | 0 | 102 | 0 | 0 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Grp Sat Flow(s),veh/h/ln | 1662 | 0 | 0 | 1624 | 0 | 0 | 408 | 1749 | 1560 | 256 | 1735 | 1547 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 21.7 | 0.5 | 1.9 | 12.8 | 0.3 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 21.1 | 21.7 | 0.5 | 23.6 | 12.8 | 0.3 |
| Prop In Lane | 0.23 | | 0.38 | 0.33 | | 0.39 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 354 | 0 | 0 | 354 | 0 | 0 | 289 | 2175 | 970 | 188 | 2158 | 962 |
| V/C Ratio(X) | 0.21 | 0.00 | 0.00 | 0.29 | 0.00 | 0.00 | 0.28 | 0.81 | 0.04 | 0.06 | 0.60 | 0.02 |
| Avail Cap(c_a), veh/h | 937 | 0 | 0 | 923 | 0 | 0 | 324 | 2476 | 1104 | 210 | 2456 | 1095 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.5 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 | 12.9 | 8.1 | 4.1 | 17.1 | 6.5 | 4.1 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.5 | 1.9 | 0.0 | 0.1 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.6 | 4.0 | 0.1 | 0.1 | 2.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.8 | 0.0 | 0.0 | 21.3 | 0.0 | 0.0 | 13.4 | 10.0 | 4.2 | 17.2 | 6.8 | 4.1 |
| LnGrp LOS | C | A | A | C | A | A | B | B | A | B | A | A |
| Approach Vol, veh/h | | 73 | | | 102 | | | 1880 | | | 1333 | |
| Approach Delay, s/veh | | 20.8 | | | 21.3 | | | 10.0 | | | 6.8 | |
| Approach LOS | | C | | | C | | | B | | | A | |

| Timer - Assigned Phs | 2 | 4 | 6 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 41.1 | 15.4 | 41.1 | 15.4 |
| Change Period (Y+Rc), s | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting (Gmax), s | 40.0 | 30.0 | 40.0 | 30.0 |
| Max Q Clear Time (g_c+I1), s | 23.7 | 4.1 | 25.6 | 4.9 |
| Green Ext Time (p_c), s | 11.5 | 0.3 | 7.4 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 9.3 |
| HCM 6th LOS | A |

# CTH F & Lindsay Road Traffic Operations & Safety Intersection Analysis

## March 2, 2020

**Pewaukee City Hall**
**W240 N3065 Pewaukee Rd**
**Pewaukee, WI 53072**


TRAFFIC ANALYSIS & DESIGN, INC.

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Christian R. Sternke, P.E., $RSP_1$
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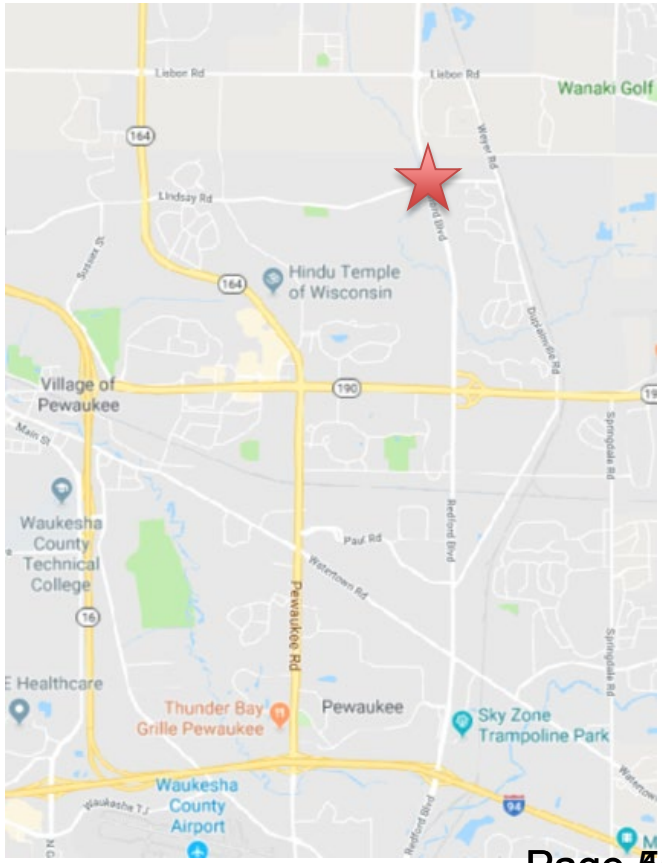



# Today's Agenda

- *Introductions*
- *Study Purpose*
- *Intersection Operations*
- *Improvement Discussion*
  - *Traffic Signal Alternative*
  - *RCUT Alternative*
  - *Full Access Restriction*

# Study Purpose

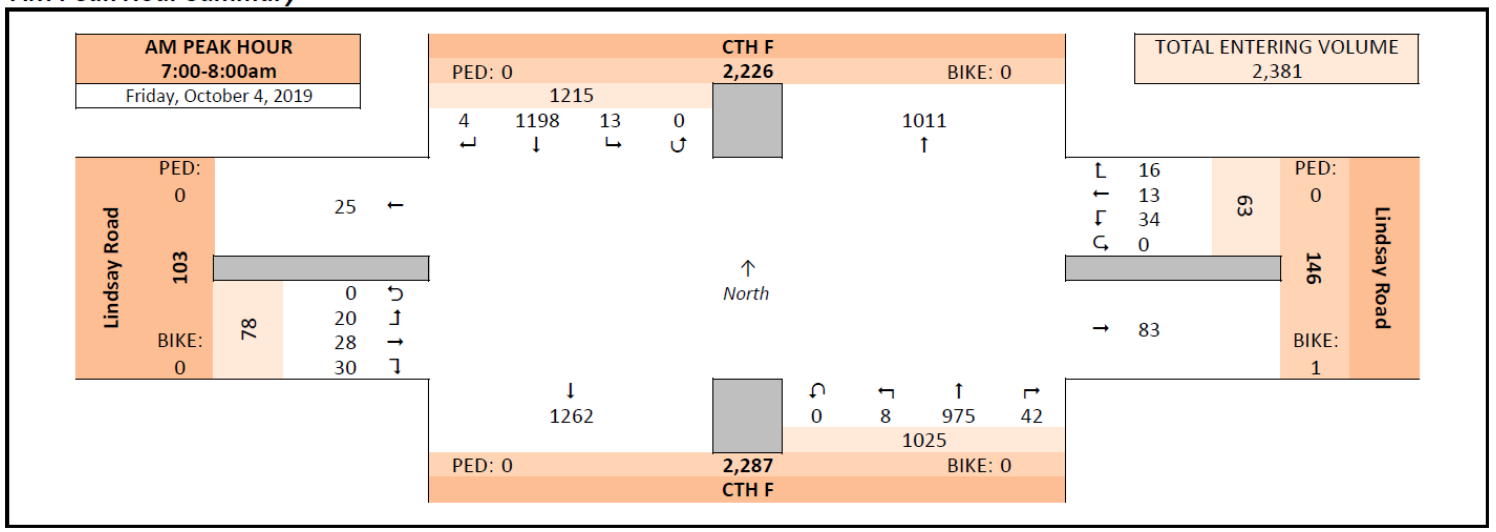
- ***Safety and operational analysis of CTH F intersection with Lindsay Road***



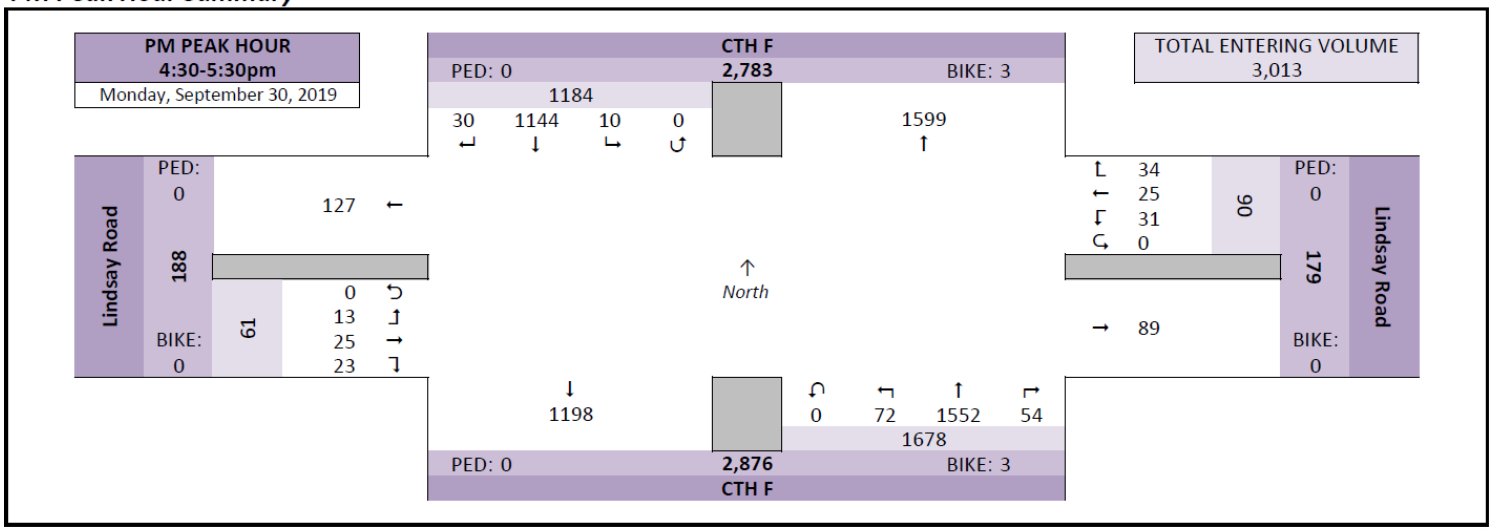



# Traffic Counts

***AM Peak Hour Summary***




***PM Peak Hour Summary***



# Existing Operations

- ***Operates Level-of-Service E/F on Lindsay Road Approaches***

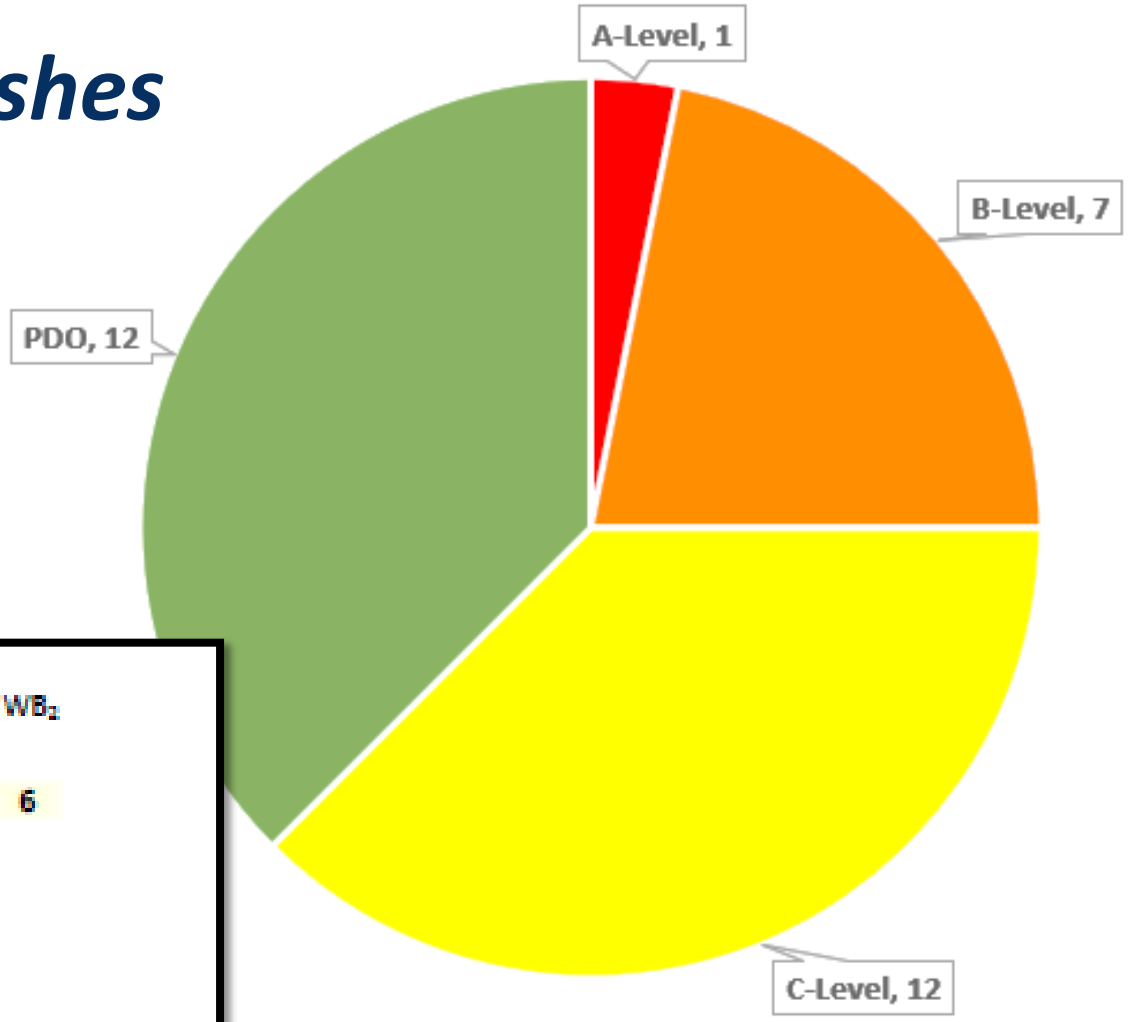
**Year 2019 Existing Traffic Operations & Queues**
***CTH F & Lindsay Road***

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Two-Way Stop Control* | AM | LOS | **E** | | | D | | | B | * | * | B | * | * |
| | | Queue | 50 | | | 40 | | | 5 | * | * | 5 | * | * |
| | | Delay | 36.4 | | | 34.0 | | | 12.5 | * | * | 11.3 | * | * |
| | PM | LOS | **F** | | | **F** | | | B | * | * | C | * | * |
| | | Queue | 95 | | | 180 | | | 15 | * | * | 5 | * | * |
| | | Delay | 96.3 | | | 239.0 | | | 13.5 | * | * | 16.7 | * | * |

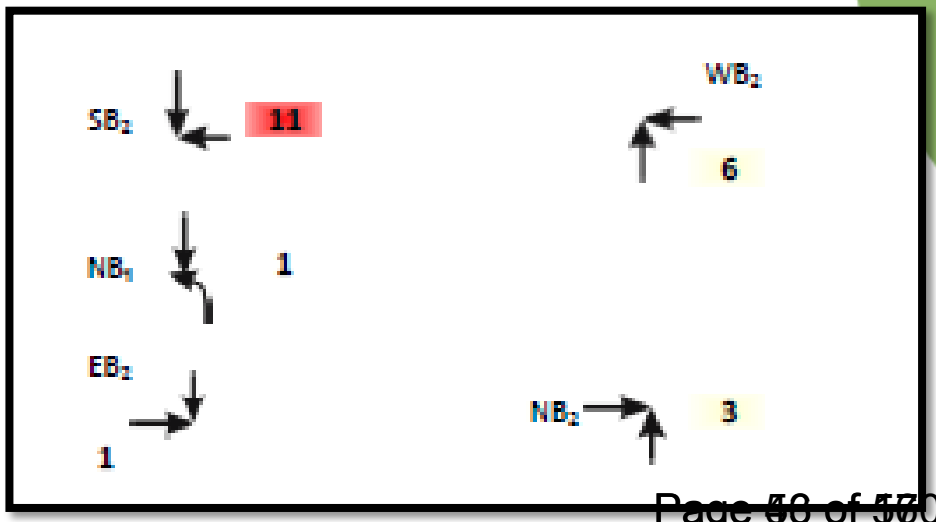
(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

# Crash History - 5 Years - (2015-2019)

- ***27 Total Crashes***



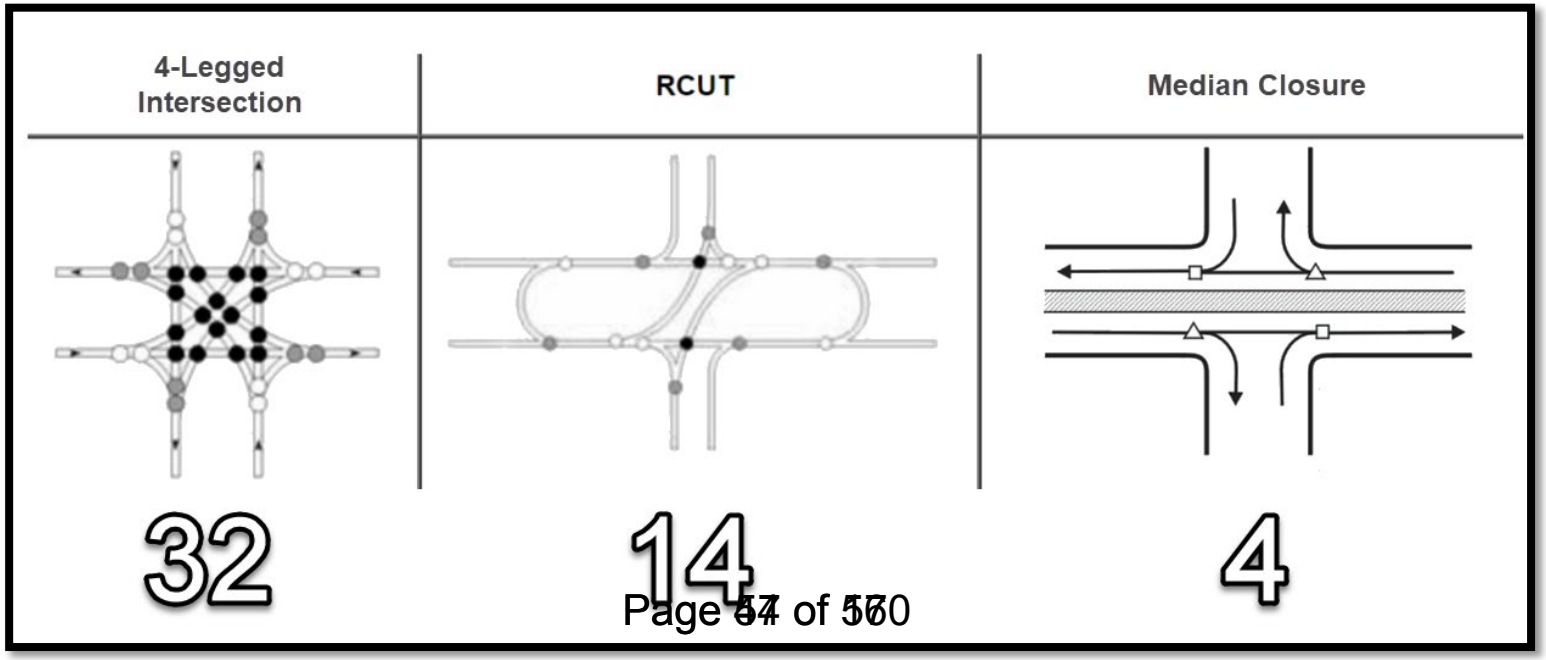

***22 Angle Crashes***



# Improvement Discussion

- *Traffic Signal*
- *RCUT*
- *Full-Access Restriction*

**Conflict Points**



# Traffic Signal Alternative

- ***Based on 13-hour traffic count, <u>NO</u> traffic signal warrants are currently met***
  - ***Warrant 1, eight-hour volumes, would be met if Lindsay Road volumes increase by <u>45%</u>***
  - ***Warrant 7, crash experience, would be met if Lindsay Road volumes increase by <u>15%</u>***

# Traffic Signal Alternative

- ***LOS C or better for all movements expected with existing volumes***

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Traffic Signal Control* | AM | LOS | B | | | B | | | B | A | A | B | A | A |
| | | Queue | 65 | | | 55 | | | 5 | 140 | 10 | 10 | 195 | 5 |
| | | Delay | 15.9 | | | 15.7 | | | 13.0 | 7.1 | 4.8 | 10.3 | 8.2 | 4.7 |
| | PM | LOS | C | | | C | | | B | B | A | B | A | A |
| | | Queue | 55 | | | 75 | | | 45 | 325 | 15 | 10 | 190 | 10 |
| | | Delay | 20.8 | | | 21.3 | | | 13.4 | 10.0 | 4.2 | 17.2 | 6.8 | 4.1 |

(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

# RCUT/J-Turn Video




https://www.youtube.com/watch?v=nPcMeh0gDC0

# RCUT Alternative

- ***Example RCUT located at STH 23 & CTH M intersection in Plymouth, WI***



# RCUT Alternative

Hi John,

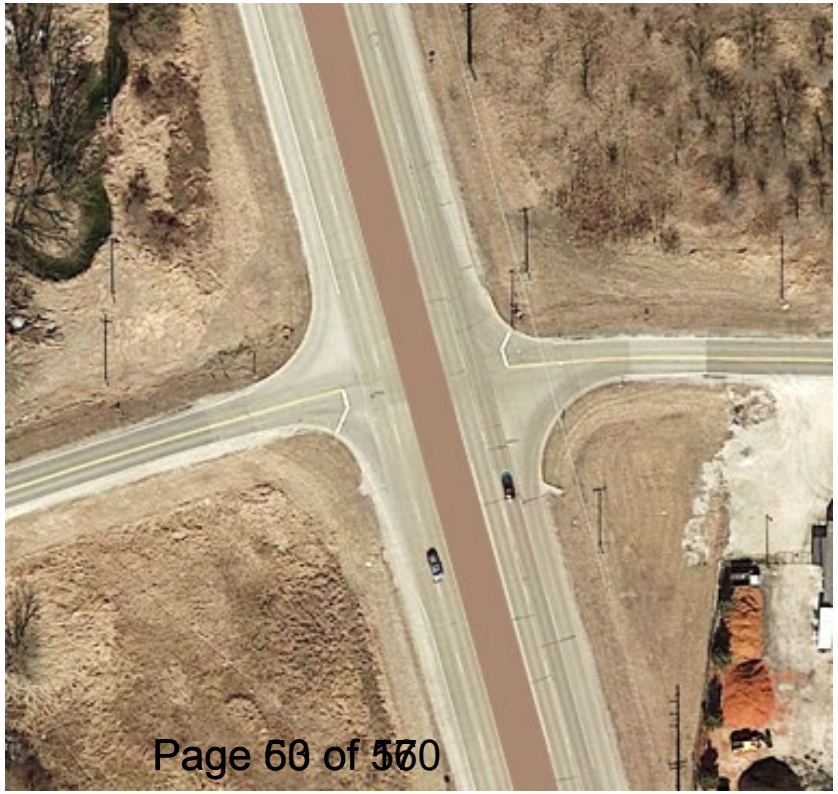
My closest example would likely be STH 23 & CTH M in Sheboygan County. It is located about 2 miles east of the STH 57 interchange. Mainline STH 23 varies between 22,000-25,000. I do not have a count on CTH M, but I would suspect its volume is between 1,000-1,500.

| | | | | Year | K | A | B | C | PDO | KABC | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Northeast | Sheboygan | WIS 23 & CTH M | 2013 | 2000 | 1 | 0 | 1 | 1 | 2 | 3 | 5 |
| | | | | 2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | 2002 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | | | | 2003 | 0 | 1 | 3 | 1 | 0 | 5 | 5 |
| | | | | 2004 | 0 | 1 | 1 | 1 | 1 | 3 | 4 |
| | | | | 2005 | 1 | 1 | 0 | 0 | 0 | 2 | 2 |
| | | | | 2006 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | | | | 2007 | 0 | 0 | 2 | 0 | 2 | 2 | 4 |
| | | | | 2008 | 0 | 0 | 0 | 1 | 3 | 1 | 4 |
| | | | | 2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | 2010 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | 2011 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | 2012 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| | | | | **Total** | 2 | 3 | 8 | 4 | 11 | 17 | 28 |
| | | | | 2014 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | | | | 2015 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | | | | 2016 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| | | | | 2017 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | 2018 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | **Total** | 0 | 0 | 0 | 0 | 5 | 0 | 5 |

**Scott A. Nelson, P.E.**
WisDOT Traffic Engineer
Phone: (920) 366-2109

# Full Access Restriction

- ***Median Closure***
  - ***Undesirable impact on traffic patterns/access***



# Summary

- *Improvement Options*
  - *Traffic Signal*
  - *RCUT*
  - *Full Access Restriction*
- *HSIP Potential*
  - *90% Federal Aid*
  - *Next Applications are Due Aug. 15, 2020*

TRAFFIC ANALYSIS & DESIGN, INC.

# Thank you.


www.tadi-us.com

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Christian R. Sternke, P.E., $RSP_1$
csternke@tadi-us.com




# AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is entered into between the **City of Pewaukee** (Client) and **Traffic Analysis & Design, Inc.** (Engineer), based upon Client's intention to perform operational analysis for a RCUT configuration at the intersection of CTH L & Lindsay Road in The City of Pewaukee, Wisconsin (the Project) and Client's requirement for certain engineering services in connection with the Project (the Services) which Engineer is prepared to provide.

1. Engineer shall provide the Services described in Attachment A, "Scope of Services", according to Attachment A, "Schedule".

2. Client shall pay Engineer in accordance with Attachment A, "Compensation". Invoices shall be due and payable upon receipt. Invoice amounts not paid within 30 days after receipt shall accrue interest at the rate of 1.5% per month (or the maximum rate permitted by law, if less), with payments applied first to accrued interest and then to unpaid principal.

3. The same degree of care, skill, and diligence shall be exercised in the performance of the Services as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances. No other warranty, express or implied, is included in this Agreement or in any drawing, specification, report, opinion, or other instrument of service, in any form or media, produced in connection with the Services.

4. Engineer shall not be liable to Client for any consequential damages resulting in any way from the performance of the Services. To the fullest extent permitted by law, Engineer's liability under this Agreement shall not exceed Engineer's total compensation actually received under this Agreement.

5. Engineer and Client waive all rights against each other for damages covered by property insurance during and after the completion of the Services.

6. Not withstanding anything to the contrary in any Attachments hereto, Engineer has no responsibility for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; or (b) the failure of any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to Client or to comply with federal, state, or local laws, regulations, and codes.

7. Engineer does not guarantee that proposals, bids, or actual Project costs will not vary from Engineer's cost estimates or that actual schedules will not vary from Engineer's projected schedules.

8. This Agreement may be terminated upon written notice at Client's convenience or by either party in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. Engineer shall terminate performance of Services on a schedule acceptable to Client, and Client shall pay Engineer for all Services performed and reasonable termination expenses. Paragraphs 4 and 5 shall survive any termination or completion of this Agreement.

9. All documents prepared by Engineer pursuant to this Agreement are instruments of service in respect to the Project. Any use except for the specific purpose intended by this Agreement will be at the user's sole risk and without liability or legal exposure to Engineer. Engineer shall retain its ownership in its data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the Services shall remain the property of Engineer.

10. The Services provided for in this Agreement are for the sole use and benefit of Client and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Client and Engineer.

11. Any notice required by this Agreement shall be made in writing to the address specified below:

**Client**: City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072
**Attn**: Magdelene Wagner, P.E.
Public Works Director

**Engineer**: Traffic Analysis & Design, Inc.
PO Box 128
Cedarburg, WI 53012
**Attn**: John A. Bieberitz, P.E., PTOE

IN WITNESS WHEREOF, Client and Engineer have executed this Agreement, effective as of February 24, 2020.

**City of Pewaukee (Client)**

By:_____

Title: _____

Date: _____

**Traffic Analysis & Design, Inc. (Engineer)**

By: _____
John A. Bieberitz, P.E., PTOE

Date: 2/24/20

# ATTACHMENT A

## SCOPE OF SERVICES

Engineer will conduct operation analysis for a reduced-conflict-u-turn (RCUT) configuration at the intersection of County Trunk Highway (CTH) F and Lindsay Road consisting of a traffic forecast, Highway Capacity Software (HCS7) analysis, a memorandum documenting the findings and recommendations, and presenting the results at a council meeting on March 2, 2020. Each element of the scope is outlined below.

### Task 1 – Traffic Forecast

Engineer will utilize TADI's historical traffic database of ADT's on arterials and collectors from WisDOT within the study area from 1976 to present to determine expected growth rates in future traffic. Engineer will use the growth rate to factor the existing traffic turning movement counts to the Design Year 2030 traffic volumes. Engineer will then determine the weekday AM and PM peak hour traffic turning movements for the Year 2019 and Design Year 2030 conditions for the traffic analysis. Engineer will also determine the Year 2019 and Design Year 2030 ADT's on the four legs of the CTH F and Lindsay Road.

### Task 2 – Traffic Operations Analysis

Engineer will conduct an intersection operational analysis for the weekday AM and PM peak hours for the CTH F and Lindsay Road intersection for the following scenarios:

- Existing (2019) conditions with RCUT
- Future (2030) existing two-way stop control
- Future (2030) conditions with RCUT

Engineer will make recommendations such as turn bay length extensions, additional turn lanes, channelization, traffic control modifications and other improvements required to provide LOS 'D' or better for all traffic movements.

### Task 3 – Report/Presentation

Engineer will prepare a technical memorandum summarizing the findings of the analysis and recommendations for the next steps. The report will be written as an addendum to the original report dated November 7th, 2019 and the results will be presented at the March 2, 2020 council meeting.

## ADDITIONAL WORK

In-person meetings (aside from presenting the results at the March 2, 2020 council meeting) are not included in the scope of work and would require an amendment.

## SCHEDULE

Engineer will complete the traffic study within one week of authorization.

## COMPENSATION

Compensation for the services described above, CLIENT shall pay Engineer a lump sum fee of One Thousand Nine-Hundred and Ninety-Four Dollars and Seventeen Cents ($1,994.17).

All services not cited in Attachment A, Scope of Services, will be conducted as additional services under an Amendment to this Agreement.

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 8.

**DATE:** June 15, 2020

**DEPARTMENT:** PW - Engineering

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Lindsay Road and Redford Boulevard (CTH F) intersection Study [Wagner]

***BACKGROUND:***

Previously, the Common Council authorized the City to fund an intersection study of Lindsay Road and Redford Boulevard (CTH F) being completed on our behalf by Waukesha County. The study was completed and a draft report provided to the City in November of 2019. See the study attached. Also in November, the Consultant, along with Waukesha County Staff, presented the Study results to City Staff. At the March 2nd Common Council meeting, Traffic Analysis and Design Inc (TADI) presented the study to the Council Members.

On Monday, February 17, 2020, there was another severe accident at this intersection. Waukesha County, the Sheriff's Department, and the Engineering office received follow up phone calls regarding this accident and the status of the intersection study prompting Staff to bring the presentation to the City Common Council on March 2nd. Unfortunately the day after our presentation (Tuesday March 3rd), there was another severe accident at this intersection.

During the discussion regarding the Study, the Common Council requested a proposal for further analysis of the intersection that included traffic projections from future developable lands near the intersection. Staff also asked for a re-evaluation of alternatives for this intersection beyond the Restricted Crossing U-Turn (RCUT). See the attached Proposal and Agreement. The proposal would include all the information necessary to apply for the Highway Safety Improvement Program (HSIP) grant for funding the improvements at this intersection.

***FINANCIAL IMPACT:***

There is currently no funds budgeted in 2020 for design or construction improvements for this intersection in the City budget nor in the County budget.

In discussions with Waukesha County, their budget programming typically has a 3-5 year window. In addition, the project would likely include a substantial partnership with the City to assist in the funding of the project.

If the amended study by Traffic Analysis & Design, Inc. is authorized, $15,912 will need to be re-allocated to allow for this study. It is recommended these funds be re-allocated from the Roundy's Industrial Park Road project previously authorized to be delayed to 2021 or from Contingency Funds.

***RECOMMENDED MOTION:***

Authorize the Director of Public Works and City Administrator, if desired, to begin discussions with Waukesha County regarding final design of the intersection improvements and establishing funding or other partnership agreements for the intersection improvements including applying for the HSIP grant.

Authorize Traffic Analysis & Design, Inc. to complete an amended study in accordance with the Agreement in the amount not to exceed $15,912 with funds re-allocated from the account of your choice.

**ATTACHMENTS:**

Description

TADI Agreement

Intersection Study

# AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is entered into between the **City of Pewaukee** (Client) and **Traffic Analysis & Design, Inc.** (Engineer), based upon Client's intention to perform a traffic impact study and intersection control evaluation for the intersection of CTH F & Lindsay Road in The City of Pewaukee, Wisconsin (the Project) and Client's requirement for certain engineering services in connection with the Project (the Services) which Engineer is prepared to provide.

1. Engineer shall provide the Services described in Attachment A, "Scope of Services", according to Attachment A, "Schedule".

2. Client shall pay Engineer in accordance with Attachment A, "Compensation". Invoices shall be due and payable upon receipt. Invoice amounts not paid within 30 days after receipt shall accrue interest at the rate of 1.5% per month (or the maximum rate permitted by law, if less), with payments applied first to accrued interest and then to unpaid principal.

3. The same degree of care, skill, and diligence shall be exercised in the performance of the Services as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances. No other warranty, express or implied, is included in this Agreement or in any drawing, specification, report, opinion, or other instrument of service, in any form or media, produced in connection with the Services.

4. Engineer shall not be liable to Client for any consequential damages resulting in any way from the performance of the Services. To the fullest extent permitted by law, Engineer's liability under this Agreement shall not exceed Engineer's total compensation actually received under this Agreement.

5. Engineer and Client waive all rights against each other for damages covered by property insurance during and after the completion of the Services.

6. Not withstanding anything to the contrary in any Attachments hereto, Engineer has no responsibility for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; or (b) the failure of any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to Client or to comply with federal, state, or local laws, regulations, and codes.

7. Engineer does not guarantee that proposals, bids, or actual Project costs will not vary from Engineer's cost estimates or that actual schedules will not vary from Engineer's projected schedules.

8. This Agreement may be terminated upon written notice at Client's convenience or by either party in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. Engineer shall terminate performance of Services on a schedule acceptable to Client, and Client shall pay Engineer for all Services performed and reasonable termination expenses. Paragraphs 4 and 5 shall survive any termination or completion of this Agreement.

9. All documents prepared by Engineer pursuant to this Agreement are instruments of service in respect to the Project. Any use except for the specific purpose intended by this Agreement will be at the user's sole risk and without liability or legal exposure to Engineer. Engineer shall retain its ownership in its data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the Services shall remain the property of Engineer.

10. The Services provided for in this Agreement are for the sole use and benefit of Client and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Client and Engineer.

11. Any notice required by this Agreement shall be made in writing to the address specified below:

**Client**: City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072
**Attn**: Magdelene Wagner, P.E.
Public Works Director

**Engineer**: Traffic Analysis & Design, Inc.
PO Box 128
Cedarburg, WI 53012
**Attn**: John A. Bieberitz, P.E., PTOE

IN WITNESS WHEREOF, Client and Engineer have executed this Agreement, effective as of March 6, 2020.

**City of Pewaukee (Client)**

By:_____

Title: _____

Date: _____

**Traffic Analysis & Design, Inc. (Engineer)**

By: _____
John A. Bieberitz, P.E., PTOE

Date: 3/6/20

# ATTACHMENT A

## SCOPE OF SERVICES

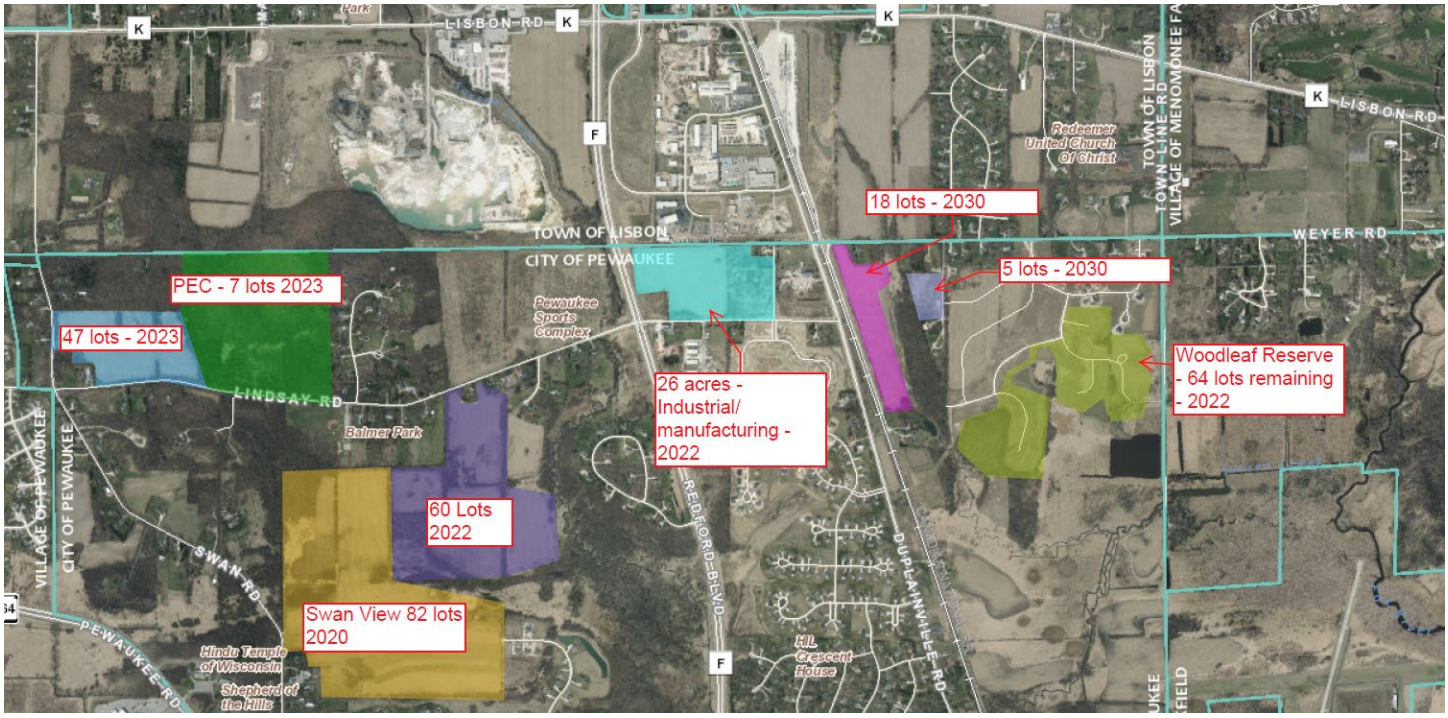
Engineer shall provide the Services described below. As indicated, Tasks 1-6 include activities involved with preparation of a Traffic Impact Analysis (TIA) and intersection control evaluation (ICE) for the intersection of CTH F and Lindsay Road. The TIA and ICE analysis will be completed to Waukesha County standards and that of the Highway Safety Improvement Program, but will not be completed to WisDOT standards as WisDOT will not review the TIA or ICE.

Engineer will prepare the traffic impact study analysis in accordance with the Institute of Transportation Engineers Traffic Impact Analysis (TIA) Guidelines and current Waukesha County TIA Guidelines. The study area will include the intersection of CTH F & Lindsay Road. Surrounding developments and potential developments, as provided by the CLIENT, will be included in the analysis.

The study will analyze the following scenarios:

1. Existing 2020 conditions, which will include:
    a. Traffic from weekday turning movement count in October 2019
    b. Traffic projected from the Pewaukee Sports Complex and the Swan View 82 Lot development
2. Future 2030 conditions, which will include:
    a. Background traffic growth
    b. Traffic projected from the Pewaukee Sports Complex, the Swan View 82 Lot development, and the other potential developments shown in Figure 1 below

***Figure 1 – Potential Future Developments Provided by Client***



The TIA submittal will consist of a report with exhibits illustrating the traffic counts, traffic projections, level of service operations, trip generation, trip distribution, site plan, text, analysis procedures, recommendations, conclusions and appendix of all intersection capacity calculations.

### *Task 1 – Traffic Projections*

Engineer will utilize TADI's historical traffic database of ADT's on arterials and collectors from WisDOT within the study area from 1976 to present to determine expected growth rates in future traffic. Engineer will use the growth rate to factor the existing traffic turning movement counts to the Year 2030 background traffic volumes. Engineer will then determine the weekday AM and PM peak hour traffic turning movements for the Year 2030 background conditions for the traffic analysis.

### *Task 2 – 2020 Traffic Analysis*

#### *Trip Generation and Distribution*

Engineer will estimate the volume of traffic expected to be generated by Pewaukee Sports Complex and the Swan View 82 Lot development based on the known uses and utilizing the fitted curve equations in the *ITE Trip Generation Manual, 10th Edition*. Traffic will be generated for the weekday daily, weekday AM and PM peak hours. The traffic generated will be distributed to the study area intersections for the total build conditions based on the existing traffic patterns. The traffic assignment will be added to the existing traffic volumes (counted in October 2019) at the study area intersection.

#### *Traffic Operational Analysis*

Engineer will analyze the study area intersection as previously described for the typical weekday AM and PM peak hours for Year 2020 build conditions. The following configurations will be analyzed:

1. Two-way stop control
2. Restricted-Crossing-U-Turn (RCUT)
3. Traffic Signal
4. Roundabout

Based on this analysis, Engineer will make recommendations on traffic control, intersection geometrics, turn bay length extensions, channelization, by-pass lanes and other improvements required to provide LOS ‘D’ or better for all traffic movements at the study area intersections.

### *Task 3 – 2030 Traffic Analysis*

#### *Trip Generation and Distribution*

In addition to generating traffic for the Pewaukee Sports Complex and the Swan View 82 Lot development, Engineer will generate traffic for the other potential developments shown previously in Figure 1 based on the known uses and sizes by utilizing the fitted curve equations in the *ITE Trip Generation Manual, 10th Edition*. Traffic will be generated for the weekday daily, weekday AM and PM peak hours. The traffic generated will be distributed and assigned to the study area intersection and added to the projected Year 2030 background traffic volumes to determine the Year 2030 total build conditions traffic volumes.

#### *Traffic Operational Analysis*

Engineer will analyze the study area intersection as previously described for the Year 2030 total build conditions for the typical weekday AM and PM peak hours for Year 2030. The following configurations will be analyzed:

1. Two-way stop control

2. Restricted-Crossing-U-Turn (RCUT)
3. Traffic Signal
4. Roundabout

Based on the analysis, Engineer will make recommendations on traffic control, intersection geometrics, turn bay length extensions, channelization, by-pass lanes and other improvements required to provide LOS 'D' or better for all traffic movements at the study area intersections.

***Task 4 – ICE Analysis***

For each of the traffic control options analyzed in Task 3, Engineer will document the traffic queues, approach delays, and level of service for each of the traffic control scenarios. Intersection improvements will be made for each traffic control option. Engineer will provide recommendations for type of traffic control and intersection geometric recommendations based on this analysis.

Engineer will then prepare a traffic signal warrant/investigation study in accordance with the WisDOT TSDM as part of the intersection control evaluation report document. Traffic signal Warrants: Eight Hour Vehicular Volumes; Four Hour Volumes; Peak Hour Volumes; and Crash Warrant shall be evaluated for both the Year 2020 build and the 2030 total build conditions at the CTH F intersection with Lindsay Road. A left turn conflict check will also be performed, which will determine the need for left turn phasing/lanes.

Engineer will complete the WisDOT ICE analysis table for each scenario, which will be used by the County for review and approval.

***Task 5 – Report***

Engineer will prepare a traffic analysis ICE DRAFT report detailing the operational analysis and potential impacts utilizing two-way stop, RCUT, traffic signal and roundabout control scenarios. The report will contain text, tables, exhibit mark-ups and appendix documenting the traffic counts, data collection, field observations, traffic projections, traffic generation/assignment, traffic analysis, signal warrant analysis, ICE analysis, results and recommendations. Standards, specifications and reference materials used in the evaluation will be included in the report. The Client shall provide comments to Engineer so Engineer can finalize the report and submit a final electronic copy to the Client and Waukesha County.

***Task 6 - Meetings***

One meeting with the City is included in the base scope of this contract. If an additional meeting, or meetings, are required with attendance by the Engineer, it will be considered as additional services and will be billed at time and materials (meeting time, travel time, preparation time, mileage and handouts).

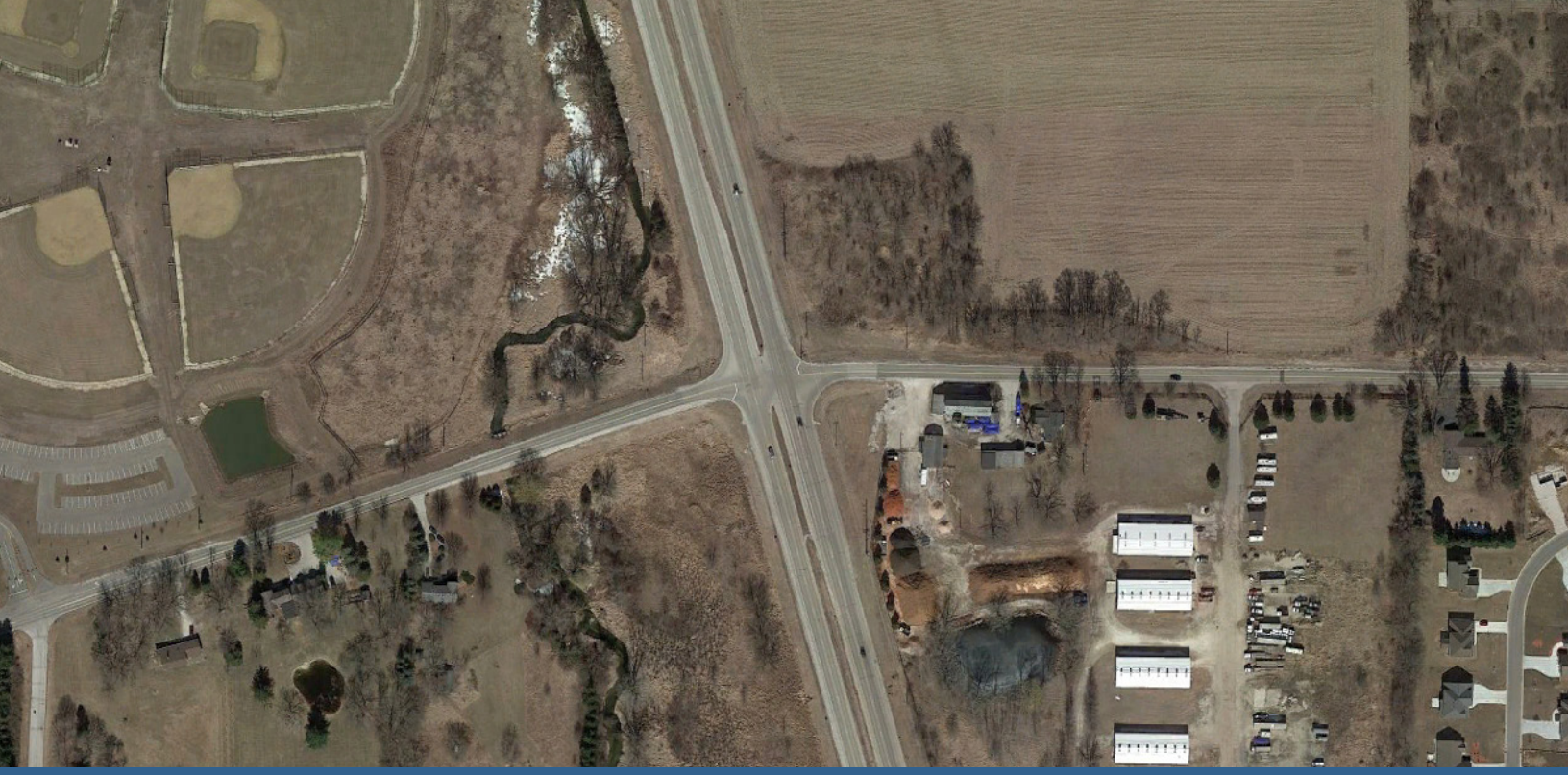
## SCHEDULE

Engineer will submit a draft TIA report to the Client within three weeks of receiving authorization. The Engineer will finalize the report and submit a final electronic pdf copy to the Client within three days of receiving comments from the Client.

## COMPENSATION

For the services described in Tasks 1, 2, 3, 4, 5, & 6: Client shall pay Engineer the lump sum fee of Fifteen Thousand Nine Hundred and Twelve Dollars ($15,912.00).

All services not cited in the Scope of Services, will be conducted as additional services under an Amendment to this Agreement.



# TRAFFIC AND SAFETY INTERSECTION ANALYSIS
# CTH F AT LINDSAY ROAD

YEARS 2014 - 2019
DATE SUBMITTED: NOVEMBER 7, 2019

**PREPARED FOR:**
Carolynn Gellings, P.E.
Engineering Services Manager, Waukesha County

Jeffrey Weigel, P.E.
Public Works Director, City of Pewaukee

**PREPARED BY:**
Traffic Analysis and Design, Inc. (TADI)
P.O. Box 128
Cedarburg, WI 53012
Authors: John Campbell, P.E., RSP1
Christian R. Sternke, P.E., RSP1
Phone: (800) 605-3091

TRAFFIC ANALYSIS & DESIGN, INC.

**Date:** November 7, 2019

# Technical Memorandum

**To:** Carolynn Gellings, P.E., Engineering Services Manager, Waukesha County
Jeffrey Weigel, P.E., Public Works Director, City of Pewaukee

**From:** John Campbell, P.E., RSP1
Christian R. Sternke, P.E., RSP1

**CC:** Bruce Barnes, P.E., Waukesha County
Magdelene Wagner, P.E., Assistant City Engineer, City of Pewaukee

**Subject:** Traffic and Safety Intersection Analysis
CTH F at Lindsay Road
City of Pewaukee, Waukesha County, Wisconsin

## PART A – INTRODUCTION

At the request of the City of Pewaukee, Waukesha County arranged a safety and operational analysis of the County Trunk Highway (CTH) F intersection with Lindsay Road within the City of Pewaukee, Waukesha County, Wisconsin. The traffic study is being conducted to determine if modifications to the roadway geometry and/or traffic control would improve the safety and operations of the intersection. Currently, the intersection observes delays during peak hours on its side-street approaches and has experienced numerous severe right-angle crashes in recent years.

This technical memorandum has been prepared to analyze the intersection under Year 2019 existing traffic conditions.

## PART B – EXISTING CONDITIONS

The CTH F intersection with Lindsay Road is located approximately 1.3 miles north of State Trunk Highway (STH) 190/Capitol Drive in the City of Pewaukee, Wisconsin. An aerial map showing the study area intersection is shown in Figure B1 on the following page.

**Figure B1**
**CTH F and Lindsay Road Aerial**




*CTH F*, also designated as Redford Boulevard, is a four-lane north/south divided highway with a posted speed limit of is 55 miles per hour (mph) in this area. The Wisconsin Department of Transportation (WisDOT) Year 2018 average annual daily traffic (AADT) volumes on CTH F were approximately 21,200 vehicles per day (vpd) south of Lindsay Road and 26,700-vpd north of Lindsay Road. WisDOT classifies CTH F as a principal arterial.

**Figure B2**
**CTH F Looking North Approaching Lindsay Road**



*Lindsay Road* is a two-lane east/west undivided roadway with a posted speed limit of 35-mph. The WisDOT Year 2018 AADT volumes on Lindsay Road were approximately 1,600-vpd west of CTH F. East of CTH F, WisDOT lists an AADT from Year 2015 of 960-vpd. WisDOT classifies Lindsay Road as a collector road.

**Figure B3**
**Lindsay Road Looking East Approaching CTH F**




Based on the 13-hour traffic turning movement count conducted for this study, the entering AADT of the CTH F intersection with Lindsay Road is estimated to be approximately 23,800-vpd.

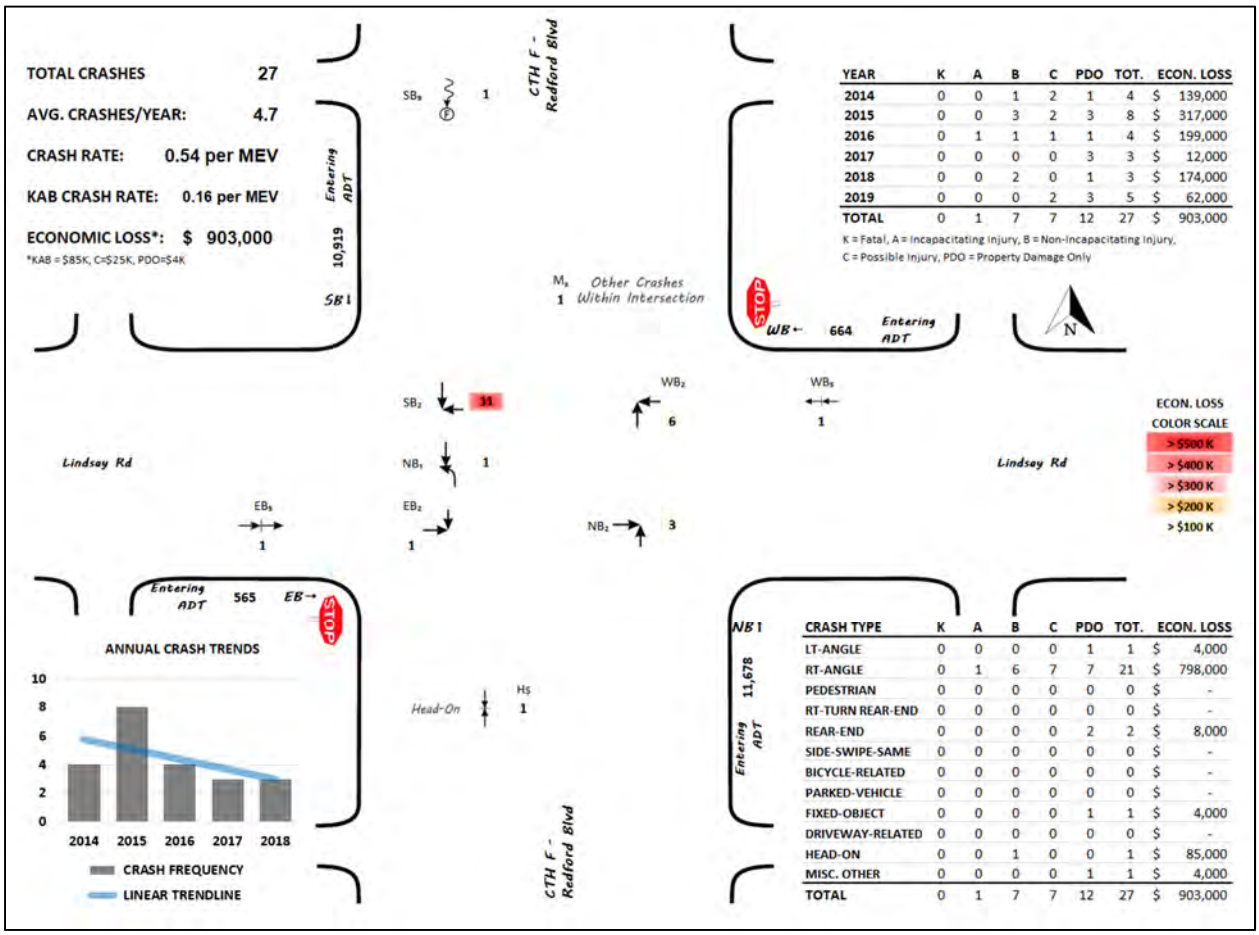
**B1. Crash Analysis**

A review of the crash records indicated that twenty-seven (27) non-deer crashes occurred at the intersection of CTH F with Lindsay Road between January 2014 and September 2019. The intersection crash rate was calculated to be 0.54 crashes per million entering vehicles (MEV) and the intersection averaged 4.7 crashes per year.

Most concerning at this location is the severity of the crashes observed. Seven (7) crashes resulted in Type C injury, another seven (7) resulted in Type B injury, and one (1) resulted in Type A injury. The remaining crashes (12) resulted in property damage only.

Figure B4 shows the intersection crash plot, while full crash diagram and statistics have been included in the appendix.

**Figure B4**
**Crash Diagram**




| YEAR | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| 2014 | 0 | 0 | 1 | 2 | 1 | 4 | $ 139,000 |
| 2015 | 0 | 0 | 3 | 2 | 3 | 8 | $ 317,000 |
| 2016 | 0 | 1 | 1 | 1 | 1 | 4 | $ 199,000 |
| 2017 | 0 | 0 | 0 | 0 | 3 | 3 | $ 12,000 |
| 2018 | 0 | 0 | 2 | 0 | 1 | 3 | $ 174,000 |
| 2019 | 0 | 0 | 0 | 2 | 3 | 5 | $ 62,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury,
C = Possible Injury, PDO = Property Damage Only

| CRASH TYPE | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| LT-ANGLE | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| RT-ANGLE | 0 | 1 | 6 | 7 | 7 | 21 | $ 798,000 |
| PEDESTRIAN | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| RT-TURN REAR-END | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| REAR-END | 0 | 0 | 0 | 0 | 2 | 2 | $ 8,000 |
| SIDE-SWIPE-SAME | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| BICYCLE-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| PARKED-VEHICLE | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| FIXED-OBJECT | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| DRIVEWAY-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| HEAD-ON | 0 | 0 | 1 | 0 | 0 | 1 | $ 85,000 |
| MISC. OTHER | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

Seventy eight percent (78%) of the crashes were right-angle crashes. Drivers have difficulty crossing CTH F from Lindsay Road, particularly in the westbound direction where 17 right-angle crashes occurred (11 struck by southbound vehicles and 6 by northbound vehicles). Factors leading to these angle crashes include:

- Lindsay Road drivers misjudging available gaps
- Drivers not seeing oncoming northbound/southbound CTH F vehicles
- The higher speeds of CTH F (55-mph posted speed)

In reviewing the accident report forms, drivers often stated they stopped in the median and did not see the approaching southbound vehicle. Because sight distance is adequate, it is suspected that drivers are overloaded with information navigating this intersection. Furthermore, the high speeds on CTH F increase the likelihood and severity of collisions.

**B2. Level of Service Definitions**

The study area intersection was analyzed based on the procedures set forth in the *Highway Capacity Manual, 6th Edition* (HCM) using Synchro 10 traffic models. Intersection operation is defined by "level of service". Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS 'A', to very poor, represented by LOS 'F'. For the purpose of this study, LOS D has been identified as the acceptable LOS for peak hour operating conditions. It is noted that this threshold is the industry standard for urban areas used by WisDOT and many municipalities. Descriptions of the various levels of service are as follows:

*LOS A* is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At signalized and unsignalized intersections, average delays are less than 10 seconds.

*LOS B* represents stable operation. At signalized intersections, average vehicle delays are 10 to 20 seconds. At unsignalized intersections, average delays are 10 to 15 seconds.

*LOS C* still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At signalized intersections, average vehicle delays are 20 to 35 seconds. At unsignalized intersections, average delays are 15 to 25 seconds.

*LOS D* represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are 35 to 55 seconds. At unsignalized intersections, average delays are 25 to 35 seconds.

*LOS E* represents the capacity of the intersection. At signalized intersections, average vehicle delays are 55 to 80 seconds. At unsignalized intersections, average delays are 35 to 50 seconds.

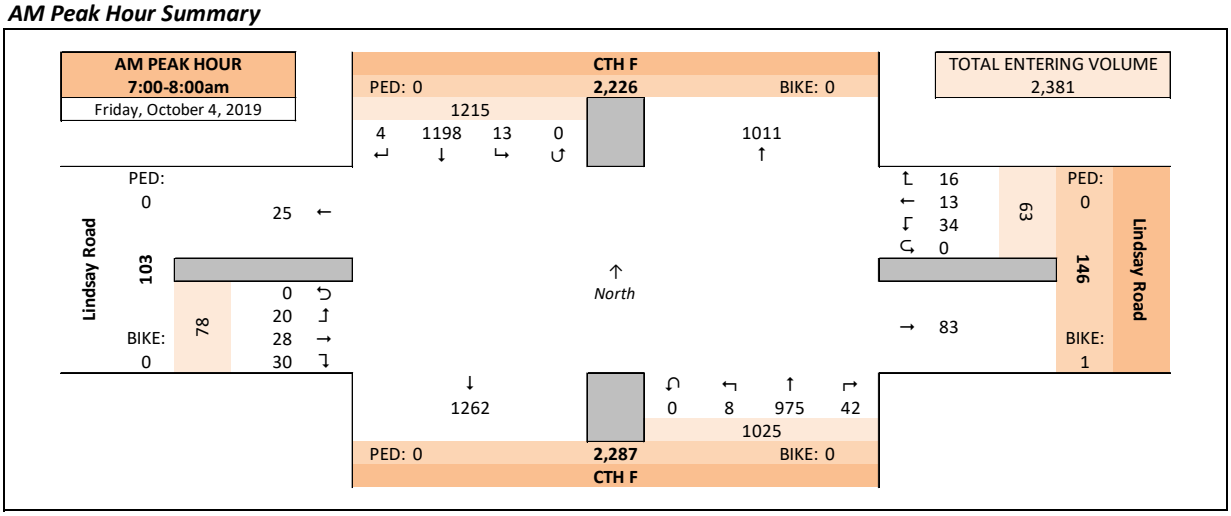
*LOS F* represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized intersections, average delays exceed 50 seconds.

**B3. Year 2019 Existing Traffic Operations – Existing Geometry & Traffic Control**

The weekday morning and weekday afternoon peak hours are expected to drive the improvements necessary to adequately accommodate the overall intersection volumes. A thirteen-hour (6:00 am to 7:00 pm) weekday turning movement count was conducted in late-September and early-October of 2019 at the study area intersection. Based on the turning movement counts, the weekday morning and weekday evening peak hours were identified as being 7:00 to 8:00 am and 4:30 to 5:30 pm, respectively. The existing traffic volumes at the study area intersection are shown below for the morning and evening peak hours. The traffic counts used to determine peak hour factors and truck percentages have been included in the appendix of this study.

## Figure B5
## Peak Hour Turning Movement Traffic Volumes

***AM Peak Hour Summary***




***PM Peak Hour Summary***

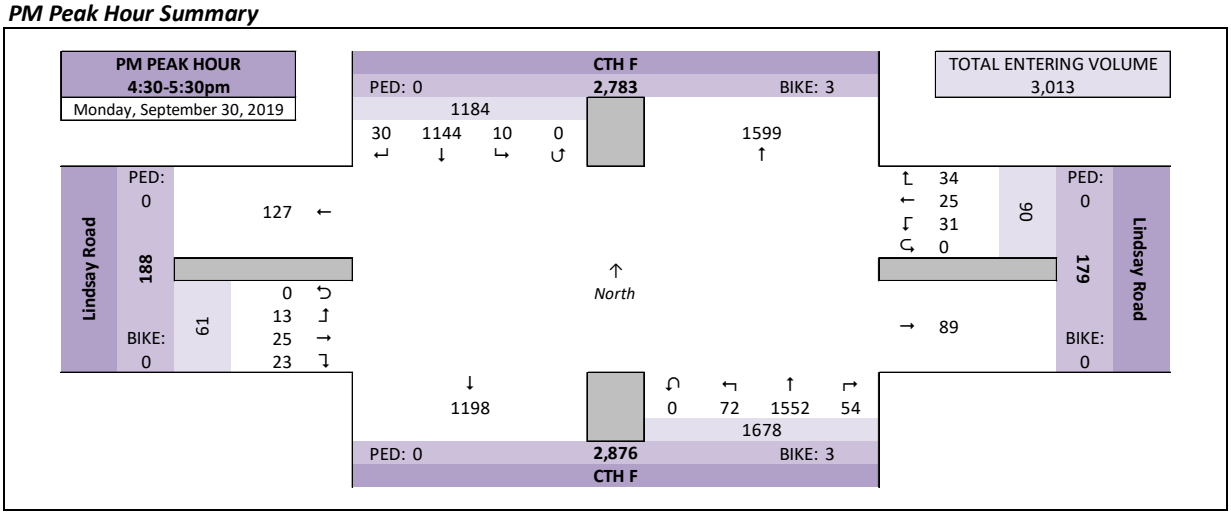



Table B3 shows the results of the Year 2019 existing weekday morning and weekday evening peak hour operational analysis at the study area intersection. The existing intersection geometry and traffic volumes were used for the analysis.

**Table B3**
**Year 2019 Existing Traffic Peak Hour Operating Conditions**
**With Existing Geometrics and Traffic Control**

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Two-Way Stop Control* | AM | LOS | **E** | | | D | | | B | * | * | B | * | * |
| | | Queue | 50 | | | 40 | | | 5 | * | * | 5 | * | * |
| | | Delay | 36.4 | | | 34.0 | | | 12.5 | * | * | 11.3 | * | * |
| | PM | LOS | **F** | | | **F** | | | B | * | * | C | * | * |
| | | Queue | 95 | | | 180 | | | 15 | * | * | 5 | * | * |
| | | Delay | 96.3 | | | 239.0 | | | 13.5 | * | * | 16.7 | * | * |

(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

As shown in Table B3, the eastbound shared lane is currently operating at LOS E conditions in the morning peak hour and the eastbound and westbound shared lanes are both operating at LOS F conditions in the evening peak hour. All other movements are operating acceptably at LOS D or better conditions. The existing traffic control analysis outputs are included in the appendix.

## PART C – ALTERNATIVE ANALYSIS

Two alternatives were evaluated as part of this study: a traffic signal alternative and a restricted crossing U-turn (RCUT) alternative.

### C1. Alternative One – Traffic Signal

*Note that traffic signal warrants should be viewed as guidelines to help decide whether a traffic signal may be installed. Meeting traffic signal warrants does not translate to a legal requirement for their installation. Warrant descriptions and completed warrant analysis worksheets are included in the appendix of this study.*

A traffic signal warrant analyses was performed at the CTH F intersection with Lindsay Road as part of this study. Chapter 4C of the 2009 *Manual on Uniform Traffic Control Devices* (MUTCD) outlines the standards for determining the need for traffic signals at a particular location. For a traffic signal to be installed, at least one of the following warrants must be satisfied. The eight signal warrants are listed below:

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Hour
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal Systems
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network

All warrants except Warrant 5 have been evaluated for this location. The posted speed limit along CTH F is 55-mph at the Lindsay Road intersection, so it was analyzed using the 70-percent minimum vehicular volumes per standard practice since the speed is greater than 40-mph.

The warrant analysis assumes the intersections to include two-lane approaches northbound and southbound on CTH F (major street) and a one-lane approaches eastbound and westbound along Lindsay Road (minor street). Right-turn movements on the Lindsay Road approaches were excluded from the approach volume per the MUTCD.

The traffic signal warrant study was conducted using the existing 13-hour turning movement counts collected at the intersection as part of this study.

Based on the warrant analysis, no warrants are expected to be met under Year 2019 existing traffic volumes. Therefore, traffic signals are not currently warranted at this intersection.

A sensitivity analysis was performed and for Warrant 7 to be met, Lindsay Road traffic would have to increase by at least fifteen percent (15%), and for Warrant 1 to be met, Lindsay Road traffic would have to increase by at least forty-five percent (45%).

Capacity analysis of the traffic signal alternative was performed using a Synchro 10 traffic model. Table C1 shows the results of the Year 2019 weekday morning and weekday evening peak hour operational analysis at the study area intersection under traffic signal control.

**Table C1**
**Year 2019 Existing Traffic Peak Hour Operating Conditions**
**Traffic Signal Control with Existing Geometrics**

| Intersection | Peak Hour | | Level of Service per Movement by Approach | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
| | | | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| *Existing Geometrics with Traffic Signal Control* | AM | LOS | B | | | B | | | B | A | A | B | A | A |
| | | Queue | 65 | | | 55 | | | 5 | 140 | 10 | 10 | 195 | 5 |
| | | Delay | 15.9 | | | 15.7 | | | 13.0 | 7.1 | 4.8 | 10.3 | 8.2 | 4.7 |
| | PM | LOS | C | | | C | | | B | B | A | B | A | A |
| | | Queue | 55 | | | 75 | | | 45 | 325 | 15 | 10 | 190 | 10 |
| | | Delay | 20.8 | | | 21.3 | | | 13.4 | 10.0 | 4.2 | 17.2 | 6.8 | 4.1 |

(--) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement.
Queue is maximum of the 50th & 95th percentile queue, measured in feet.
Delay is HCM control delay, measured in seconds.

As shown in Table C1, under traffic signal control with existing geometrics, all movements are expected to operate at LOS C or better conditions under the Year 2019 existing traffic volumes. Traffic signal control analysis outputs are included in the appendix.

### C2. Alternative Two – Restricted Crossing U-Turn (RCUT)

A restricted crossing U-turn (RCUT) intersection design restricts through and left-turn movements from the minor street at the intersection and forces the vehicles desiring those movements to turn right and make a U-turn downstream. Figure C1 shows an aerial of an RCUT intersection located in Plymouth, WI at the intersection of STH 23 and CTH M.

**Figure C1**

Example RCUT Intersection – STH 23/CTH M in Plymouth, WI



The goal of an RCUT is to reduce conflict points at the intersection to improve overall safety. Compared to a conventional 4-legged intersection, an RCUT intersection drastically decreases the number of angle crashes, due to removing the minor street through and left-turn movements.

The CTH F intersection with Lindsay Road is a candidate for an RCUT because there is a history of angle crashes from the Lindsay Road approaches and it does not meet any traffic signal warrants. An RCUT would not impede the CTH F through movements. STH 23/CTH M intersection in Plymouth, WI is an intersection that had a similar angle crash issue and has similar volumes. After the installation of the RCUT design, crashes drastically decreased at the intersection. In the 12 years prior to the RCUT installation, STH 23/CTH observed two fatal crashes, three A-level (incapacitating injury) crashes, and eight B-level (non-incapacitating injury) crashes, and 15 other crashes. In the five years after installation, only five property damage only crashes were observed.

In order to perform an accurate capacity analysis of the RCUT intersection design at CTH F and Lindsay Road, a microsimulation software, such as VISSIM, would need to be used, but it was outside the scope of this study to perform such analysis.

## PART D – ALTERNATIVES COMPARISON

Two alternatives were looked at for the CTH F intersection with Lindsay Road: a traffic signal alternative and an RCUT alternative. Both have advantages and disadvantages, which are summarized in the table below. Both alternatives are expected to have a similar range of costs, between $300,000 and $600,000, but the estimates would need to be verified by a detailed cost estimate performed by roadway designers.

| TRAFFIC SIGNAL | ADVANTAGES | DISADVANTAGES |
|---|---|---|
| Access | Full access maintained.<br><br>Convenient access from side-street. | |
| Operations | Acceptable level-of-service traffic operations.<br><br>Vastly improved level-of-service on side-street approaches. | Reduced level-of-service for northbound and southbound traffic.<br><br>Previously free-flow through movements, which make approximately 90 percent of traffic at this intersection during the peak hours, would be subjected to delays averaging 8.2 sec/vehicle in peak hours. |
| Safety | Expected to reduce risk of right-angle crashes. | Expected to increase the likelihood of high-speed rear-end crashes.<br><br>Right-angle crashes, although less likely than in existing conditions, would still be expected to occur as a result of red-light-running. |
| Federal Aid | | Very unlikely to qualify for Federal Aid due to traffic signal warrants not being met. |
| **RCUT** | **ADVANTAGES** | **DISADVANTAGES** |
| Access | | Through and left-turn movements from Lindsay Road restricted at intersection and forced to turn right and make U-turn downstream. These movements make up approximately 3.5 percent of the total traffic during the peak hours. |
| Operations | Expected to operate acceptably, however microsimulation model, such as VISSIM, should be used to verify. | Through and left-turn movements from Lindsay Road restricted at intersection and forced to turn right and make U-turn downstream, which increases travel distance and may increase delay. |
| Safety | Expected to reduce risk of right-angle crashes as through and left-turn movements from Lindsay Road would be restricted. | |
| Federal Aid | Good chance for Federal Aid through HSIP program due to the crash reduction benefits of RCUT intersections. Eligibility should be verified with SE Region Safety Engineer. | |

**PART E – SUMMARY**

At the request of the City of Pewaukee, Waukesha County arranged a safety and operational analysis of the CTH F intersection with Lindsay Road. TADI performed capacity analysis of the existing conditions and looked at two alternatives to improve safety and operations at the intersection. Alternative One was to signalize the intersection, while Alternative Two was to install a Restricted Crossing U-Turn (RCUT) intersection design. Both improvements would be expected to reduce the risk of angle crashes, but with the traffic signal alternative, an increase in high-speed rear-end crashes would be expected and a risk for angle crashes caused by red-light-running would still exist. Traffic signal warrants are currently not met, and substantially more traffic Lindsay Road would be needed to meet the 8-hour volume warrant. Because warrants are not met, the traffic signal would not be a likely candidate for Federal Aid through the HSIP program. However, the RCUT intersection design appears to have a good chance of qualifying for Federal Aid (90 percent match through the HSIP program). It is suggested that HSIP eligibility be verified with he WisDOT SE Region safety engineer.

# APPENDIX A

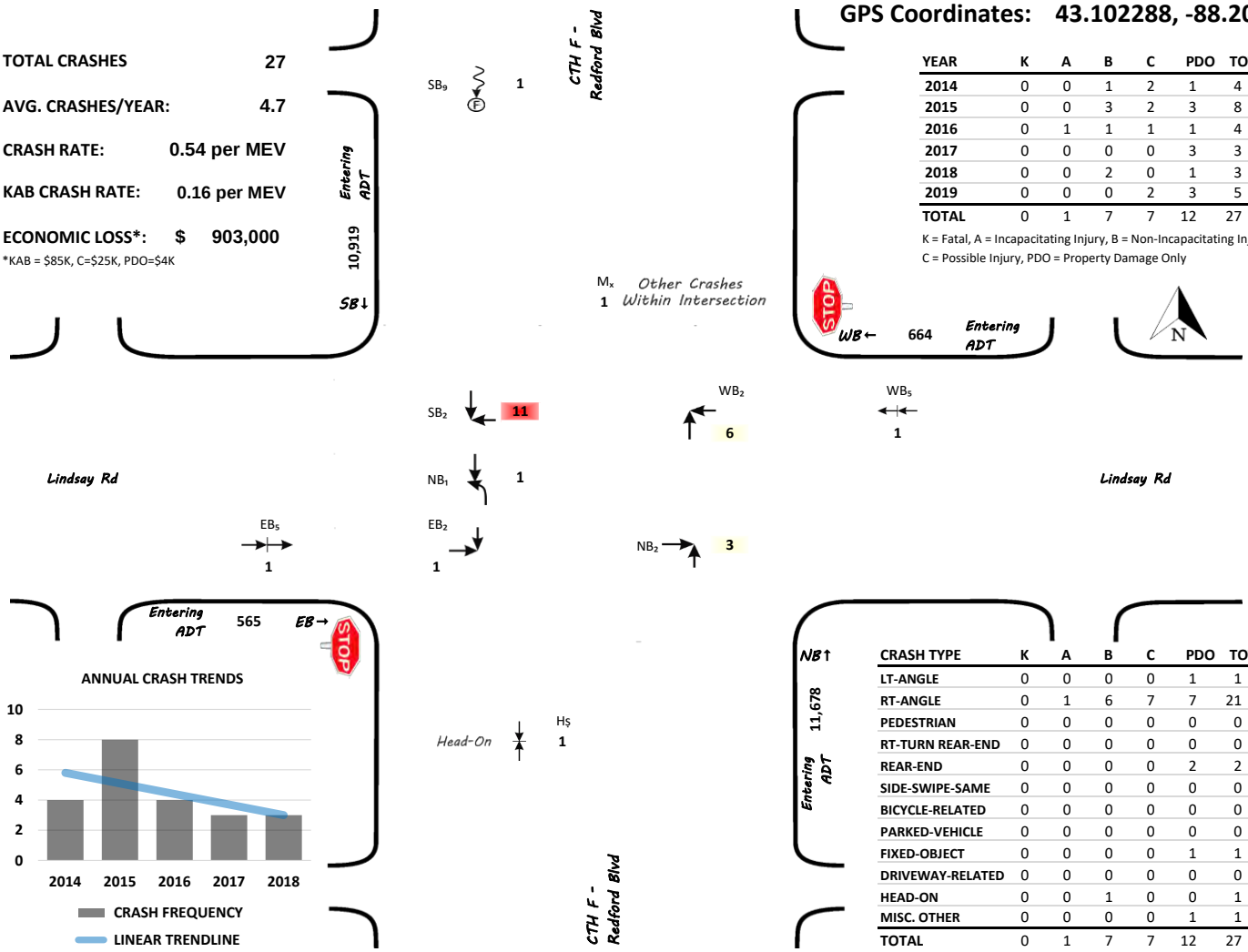
## CRASH DIAGRAM AND STATISTICS

# Intersection Collision Diagram

| | | Duration | |
|---|---|---|---|
| **Location:** | **CTH F & Lindsay Rd** | **From:** | **1/1/2014** **5 Years** |
| **Municipality:** | **Pewaukee** | **To:** | **9/17/2019** **8 Months** |
| **County:** | **Waukesha** | **AADT:** | **23,826** MAP |
| **Traffic Control:** | **Minor Street Stop** | **Area Type:** | **Urban** |
| | | **GPS Coordinates:** | **43.102288, -88.208759** |

| | |
|---|---|
| **TOTAL CRASHES** | **27** |
| **AVG. CRASHES/YEAR:** | **4.7** |
| **CRASH RATE:** | **0.54 per MEV** |
| **KAB CRASH RATE:** | **0.16 per MEV** |
| **ECONOMIC LOSS*:** | **$ 903,000** |

*KAB = $85K, C=$25K, PDO=$4K




| YEAR | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| 2014 | 0 | 0 | 1 | 2 | 1 | 4 | $ 139,000 |
| 2015 | 0 | 0 | 3 | 2 | 3 | 8 | $ 317,000 |
| 2016 | 0 | 1 | 1 | 1 | 1 | 4 | $ 199,000 |
| 2017 | 0 | 0 | 0 | 0 | 3 | 3 | $ 12,000 |
| 2018 | 0 | 0 | 2 | 0 | 1 | 3 | $ 174,000 |
| 2019 | 0 | 0 | 0 | 2 | 3 | 5 | $ 62,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury,
C = Possible Injury, PDO = Property Damage Only

ECON. LOSS COLOR SCALE
- > $500 K
- > $400 K
- > $300 K
- > $200 K
- > $100 K










| CRASH TYPE | K | A | B | C | PDO | TOT. | ECON. LOSS |
|---|---|---|---|---|---|---|---|
| LT-ANGLE | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| RT-ANGLE | 0 | 1 | 6 | 7 | 7 | 21 | $ 798,000 |
| PEDESTRIAN | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| RT-TURN REAR-END | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| REAR-END | 0 | 0 | 0 | 0 | 2 | 2 | $ 8,000 |
| SIDE-SWIPE-SAME | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| BICYCLE-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| PARKED-VEHICLE | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| FIXED-OBJECT | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| DRIVEWAY-RELATED | 0 | 0 | 0 | 0 | 0 | 0 | $ - |
| HEAD-ON | 0 | 0 | 1 | 0 | 0 | 1 | $ 85,000 |
| MISC. OTHER | 0 | 0 | 0 | 0 | 1 | 1 | $ 4,000 |
| TOTAL | 0 | 1 | 7 | 7 | 12 | 27 | $ 903,000 |

| ROAD CONDITIONS | | |
|---|---|---|
| DRY | 22 | 81% |
| WET | 2 | 7% |
| SNOW | 2 | 7% |
| ICE | 1 | 4% |
| OTH. | 0 | 0% |
| TOT. | 27 | |

| LIGHT CONDITIONS | | |
|---|---|---|
| DAY | 24 | 89% |
| DARK | 3 | 11% |
| TOT. | 27 | |

| DRIVER BEHAVIOR | | |
|---|---|---|
| ALCOHOL | 0 | 0% |
| DRUGS | 0 | 0% |
| SPEED | 2 | 7% |

| SEASON | | |
|---|---|---|
| SPRING | 8 | 30% |
| SUMMER | 6 | 22% |
| FALL | 7 | 26% |
| WINTER | 6 | 22% |
| TOT. | 27 | |

| FAILURE TO YIELD | | |
|---|---|---|
| NB | 1 | 4% |
| SB | 0 | 0% |
| EB | 3 | 11% |
| WB | 12 | 44% |
| TBD | 0 | 0% |
| TOT. | 16 | |

| BLOWN CONTROL | | |
|---|---|---|
| NB | 0 | 0% |
| SB | 0 | 0% |
| EB | 0 | 0% |
| WB | 0 | 0% |
| TBD | 0 | 0% |
| TOT. | 0 | |

TBD = verification from crash report needed for direction

| VEHICLE DAMAGE | | |
|---|---|---|
| OTHER/UNK. | 0 | 0% |
| NONE | 2 | 4% |
| VERY MINOR | 0 | 0% |
| MINOR | 5 | 11% |
| MODERATE | 12 | 26% |
| SEVERE | 26 | 55% |
| VERY SEVERE | 2 | 4% |
| TOTAL VEHICLES | 47 | |

**NOTES:**

**DAY/TIME TRENDS**

| | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM | UNK | | TOT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MON | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | MON | 2 |
| TUE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | TUE | 5 |
| WED | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | WED | 5 |
| THU | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | THU | 6 |
| FRI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | FRI | 7 |
| SAT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SAT | 1 |
| SUN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SUN | 1 |
| | 12 AM | 1 AM | 2 AM | 3 AM | 4 AM | 5 AM | 6 AM | 7 AM | 8 AM | 9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM | 3 PM | 4 PM | 5 PM | 6 PM | 7 PM | 8 PM | 9 PM | 10 PM | 11 PM | UNK | | TOT. |
| TOT. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 2 | 4 | 2 | 1 | 0 | 0 | 4 | 0 | 7 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | TOT. | 27 |

# Crash Data

**Corresponds to Collision Diagram**

| | | | | | |
|---|---|---|---|---|---|
| **Location:** | **CTH F & Lindsay Rd** | **From:** | **1/1/2014** | | |
| **Municipality:** | **Pewaukee** | **To:** | **9/17/2019** | **Duration** | |
| **County:** | **Waukesha** | **AADT:** | **23,826** | **5** | **Years** |
| **Traffic Control:** | **Minor Street Stop** | **Area Type:** | **Urban** | **8** | **Months** |

| Ref # | Label | Doc. # | Date | Crash Type | Time | Severity | Road Cond. | Light Cond. | Alc. Flag | Drug Flag | Speed Flag | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | $EB_2$ | 3WL0LCTJQQ | 10/6/2017 | RT-ANGLE | 3 PM | | WET | | | | | |
| 2 | $EB_1$ | 3WL0LF2L6S | 9/17/2019 | REAR-END | 7 AM | | | | | | | Pulled ahead and stoppe |
| 3 | $WB_2$ | DJCLXF9 | 1/10/2014 | RT-ANGLE | 5 PM | | ICE | DARK | | | | |
| 4 | $WB_2$ | DHZMNHJ | 4/10/2015 | RT-ANGLE | 5 PM | B | | | | | | |
| 5 | $WB_2$ | DJ0G3X2 | 6/16/2016 | RT-ANGLE | 7 PM | C | | | | | | Medical issue, swerved i |
| 6 | $WB_2$ | 3WL0LF2L0P | 5/17/2018 | RT-ANGLE | 8 AM | | | | | | | |
| 7 | $WB_2$ | 3WL0LCTJXS | 6/18/2019 | RT-ANGLE | 12 PM | | | DAY | | | | |
| 8 | $WB_2$ | 3WL0MLVN1L | 7/23/2019 | RT-ANGLE | 5 PM | C | | | | | | |
| 9 | $WB_1$ | DHZ72TK | 5/1/2015 | REAR-END | 8 AM | | | | | | | Pulled ahead and backe |
| 10 | $NB_1$ | DHZ72VH | 8/5/2015 | LT-ANGLE | 9 AM | | | | | | | |
| 11 | $NB_2$ | DHZ8K5Z | 11/6/2014 | RT-ANGLE | 10 AM | C | | | | | | |
| 12 | $NB_2$ | DHZ8K7B | 1/21/2015 | RT-ANGLE | 5 PM | C | | DARK | | | | |
| 13 | $NB_2$ | DJ00RSK | 1/13/2016 | RT-ANGLE | 3 PM | B | SNOW | | | | Y | |
| 14 | $H_5$ | 3WL0NFKDHN | 9/21/2018 | HEAD-ON | 10 AM | B | | | | | | Swerved to avoid WB ve |
| 15 | $SB_2$ | DHZ72NG | 5/29/2014 | RT-ANGLE | 8 AM | B | | | | | | |
| 16 | $SB_2$ | DHZ72R2 | 12/12/2014 | RT-ANGLE | 3 PM | C | | DAY | | | | |
| 17 | $SB_2$ | DHZ8K72 | 1/10/2015 | RT-ANGLE | 3 PM | B | UNKN | | | | | |
| 18 | $SB_2$ | DHZ7T27 | 4/22/2015 | RT-ANGLE | 5 PM | C | | | | | | |
| 19 | $SB_2$ | DHZ7T36 | 8/12/2015 | RT-ANGLE | 5 PM | | | | | | | Missing Report |
| 20 | $SB_2$ | DHZTL9M | 9/29/2015 | RT-ANGLE | 9 AM | B | WET | | | | | |
| 21 | $SB_2$ | DJ0G3WX | 5/30/2016 | RT-ANGLE | 11 AM | A | | | | | | |
| 22 | $SB_2$ | 3WL0LCTJNZ | 5/4/2017 | RT-ANGLE | 6 PM | | | DAY | | | | |
| 23 | $SB_2$ | 3WL0M0C3CM | 10/27/2017 | RT-ANGLE | 11 AM | | | | | | | |
| 24 | $SB_2$ | 3WL0NFKDGF | 7/12/2018 | RT-ANGLE | 10 AM | B | | | | | | |
| 25 | $SB_2$ | 3WL0NFKDL9 | 3/3/2019 | RT-ANGLE | 10 AM | C | | | | | | |
| 26 | $SB_3$ | DJ0G3V4 | 2/9/2016 | FIXED-OBJECT | 8 PM | | SNOW | DARK | | | Y | Gust of wind, icy road |
| 27 | $M_4$ | 3WL0LVN066 | 9/9/2019 | MISC. OTHER | 5 PM | | | DAY | | | | SSO in median |
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| Ref # | Label | Doc. # | Date | Crash Type | Time | Severity | Road Cond. | Light Cond. | Alc. Flag | Drug Flag | Speed Flag | Notes |
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# APPENDIX B

## EXISTING TRAFFIC COUNTS

# Intersection Traffic Volume Report

| Count Basics | Version 2013.J4.1 | | Page 1 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *Base Information, Observed (13) Hour and Estimated (24) Hour Volume Summaries*

### *Intersection of: CTH F and Lindsay Road*

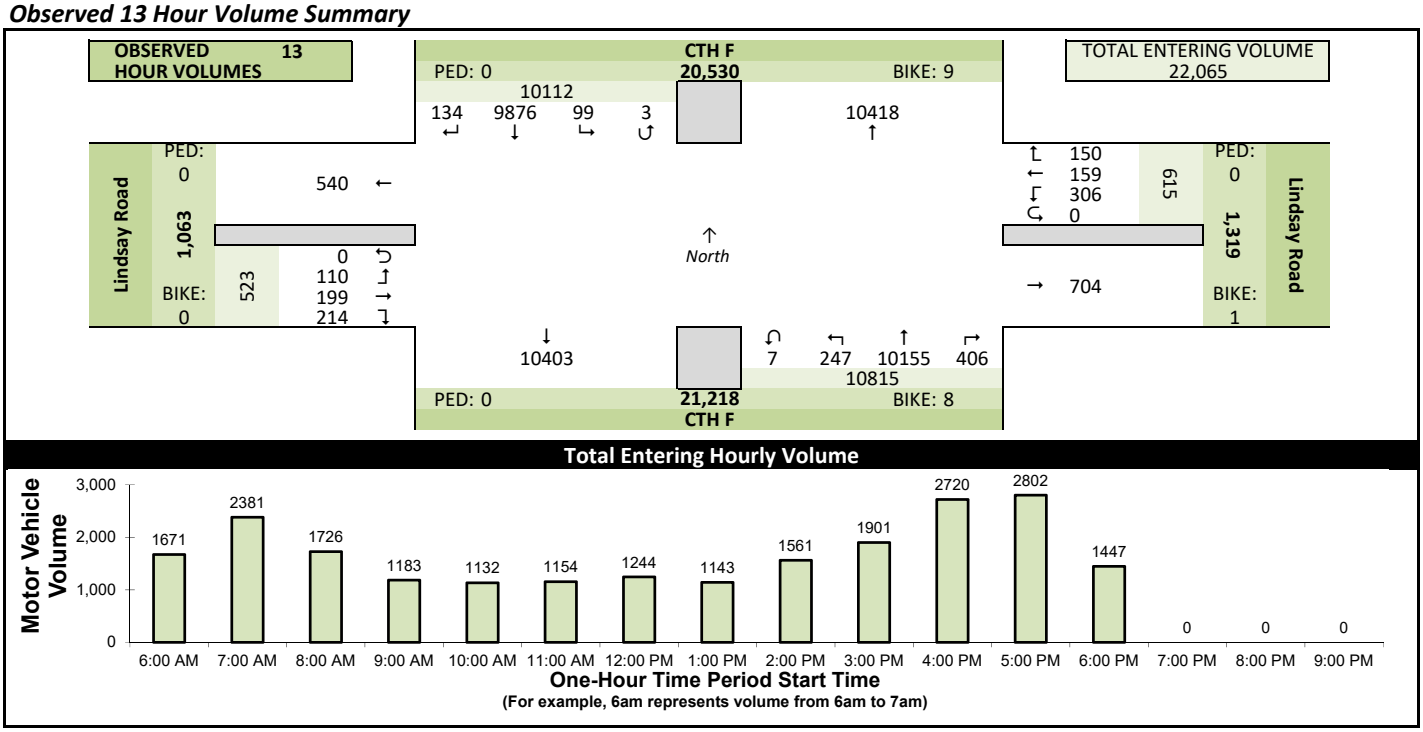
**Site Information**

| | | | |
|---|---|---|---|
| Municipality | Pewaukee | | |
| County | Waukesha | WisDOT Region | SE |
| Traffic Control | Partial Stop Control | | |
| Roadway Names | | North Direction | ↑ |
| North Leg | CTH F | | |
| East Leg | Lindsay Road | | |
| South Leg | CTH F | | |
| West Leg | Lindsay Road | | |
| Special Considerations | | | |
| Schools | In Session | | |
| Holidays | None | | |
| Special Events | None | | |
| Special Pedestrians Observed | | | |
| Pre-school children | None | | |
| Elementry school age children | None | | |
| Visually impaired (white cane/helper dog) | None | | |
| Elderly/disabled (except wheelchairs) | None | | |
| Wheelchairs/electric scooters | None | | |
| Other (describe) | None | None | |

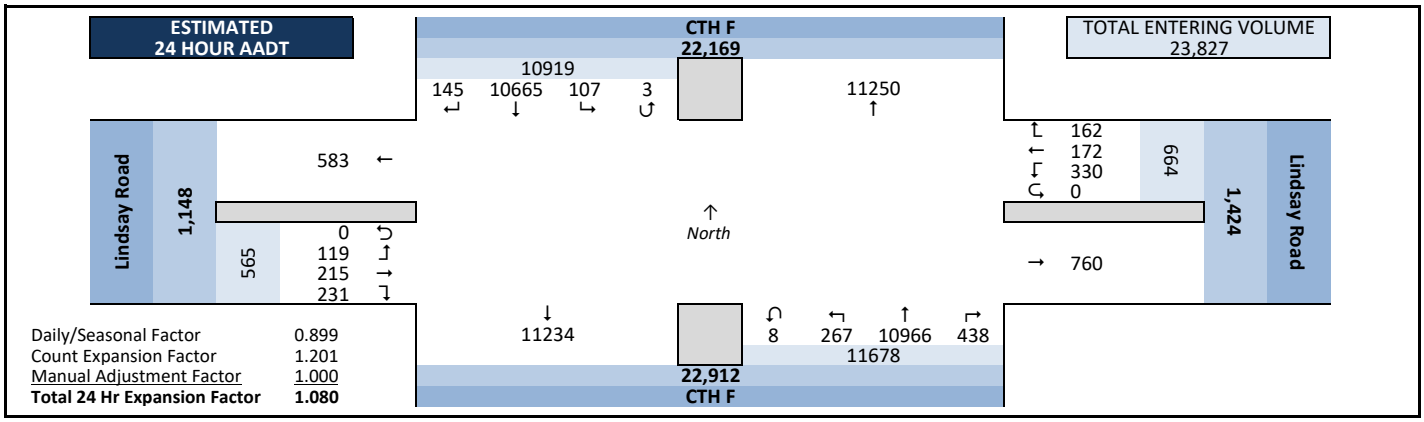
**Count Information**

| | | | | | |
|---|---|---|---|---|---|
| Hrs Counted: | 6:00 AM-7:00 PM | | | | |
| 1st Day of Count | Monday, September 30, 2019 | | | Weather | |
| AM Peak Period | Friday, October 4, 2019 | | | Clear & Dry | |
| Midday Peak Period | Monday, September 30, 2019 | | | Clear & Dry | |
| PM Peak Period | Monday, September 30, 2019 | | | Clear & Dry | |
| Calculated Peak Hours | | | | | |
| AM | 7:00-8:00am | MD | 11:30-12:30am | PM | 4:30-5:30pm |
| Peak Hours Selected for Analysis | | | | | |
| AM | 7:00-8:00am | MD | 11:30-12:30am | PM | 4:30-5:30pm |
| Daily/Seasonal Adjustment Group | (4) Rural Arterials & Collectors | | | | |
| Count Expansion Group | (4) Rural Arterials & Collectors | | | | |
| Daily/Seasonal Adjustment Factor | 0.899 | Count Expansion Factor | 1.201 | | |
| Company Name | TADI | | | Manual Adj. | 1.000 |
| Observers | AM Peak Period | Amy Scheuerlein | | | |
| | Midday Peak Period | Ted Atwell | | | |
| | PM Peak Period | Wendy Picard | | | |
| Comments | 2018 DOT Seasonal Factors | | | | |

### *Observed 13 Hour Volume Summary*




### *Estimated 24 Hour AADT*



# Intersection Traffic Volume Report

| Count Basics | | | Page 2 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

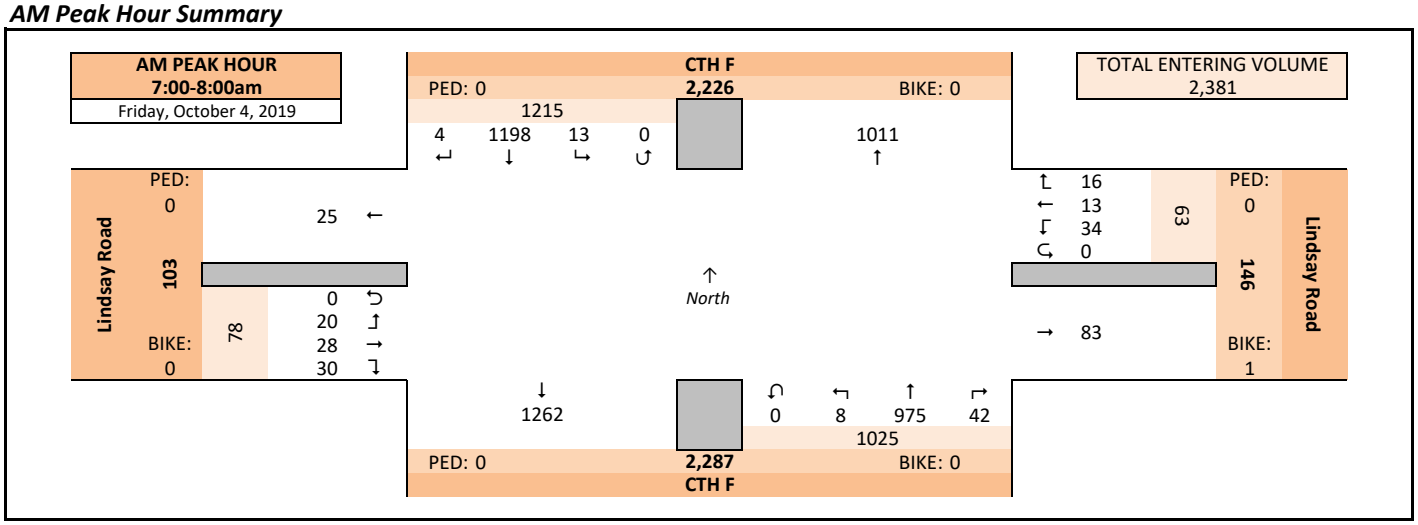
## *Peak Hour Volume Graphical Summary*

**All Motor Vehicles**

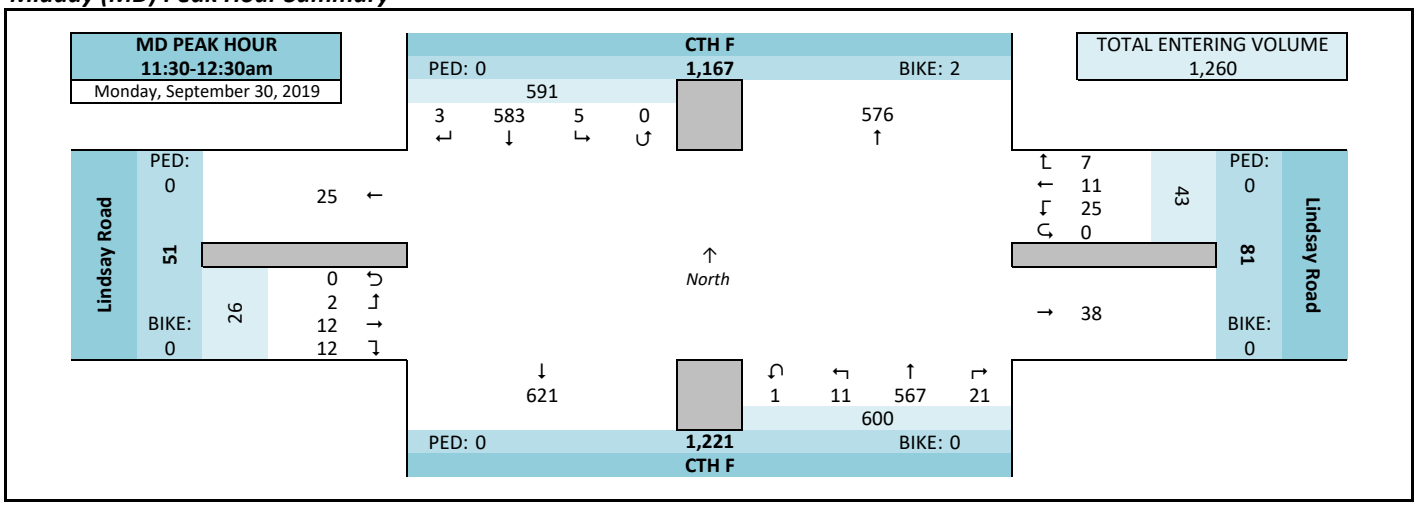


### *CTH F and Lindsay Road*

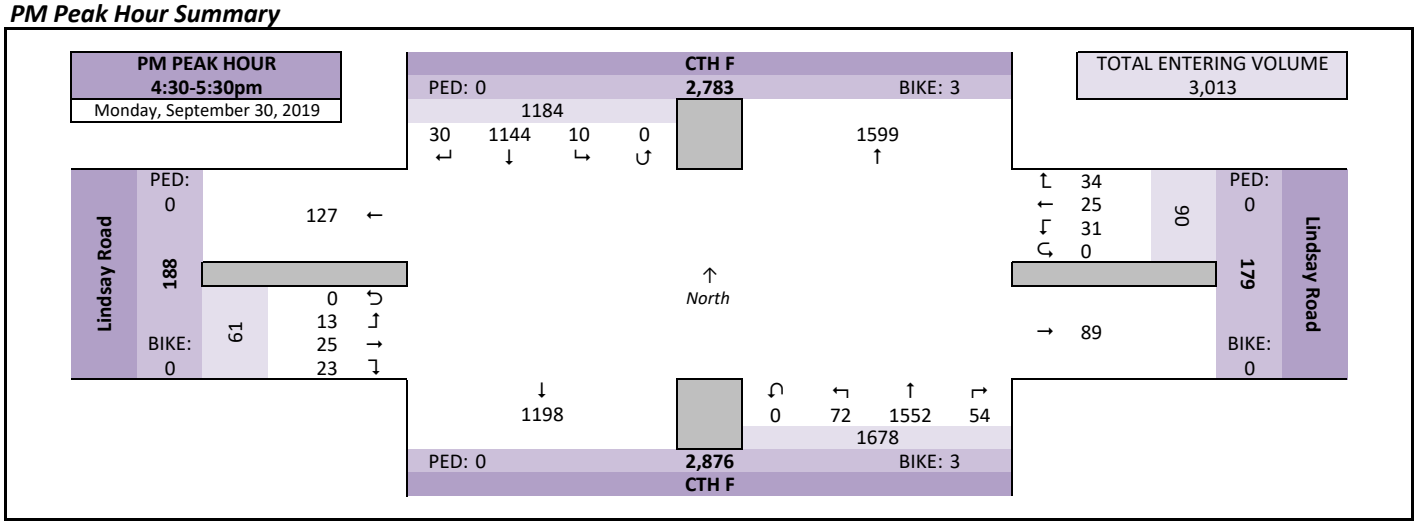
### *AM Peak Hour Summary*




### *Midday (MD) Peak Hour Summary*




### *PM Peak Hour Summary*



# Intersection Traffic Volume Report

| Count Basics | | | Page 3 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *Peak Hour Volume Summary*

**All Motor Vehicles**



### *CTH F and Lindsay Road*

**Peak Hour Volumes, Truck Percentages, and PHFs**

| Friday, October 4, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AM Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| AM Peak Hour | 7:00 AM | 0 | 286 | 2 | 0 | 288 | 3 | 2 | 9 | 0 | 14 | 7 | 182 | 2 | 0 | 191 | 4 | 6 | 3 | 0 | 13 | 506 |
| | 7:15 AM | 2 | 299 | 3 | 0 | 304 | 1 | 3 | 7 | 0 | 11 | 11 | 246 | 1 | 0 | 258 | 8 | 6 | 4 | 0 | 18 | 591 |
| | 7:30 AM | 0 | 313 | 4 | 0 | 317 | 5 | 4 | 7 | 0 | 16 | 9 | 278 | 3 | 0 | 290 | 8 | 8 | 6 | 0 | 22 | 645 |
| | 7:45 AM | 2 | 300 | 4 | 0 | 306 | 7 | 4 | 11 | 0 | 22 | 15 | 269 | 2 | 0 | 286 | 10 | 8 | 7 | 0 | 25 | 639 |
| | Peak Hour Volume | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 |
| | Rounded Hourly Volume | 5 | 1200 | 15 | 0 | 1220 | 15 | 15 | 35 | 0 | 65 | 40 | 975 | 10 | 0 | 1025 | 30 | 30 | 20 | 0 | 80 | 2390 |
| | % Single Unit Trucks | 0.0 | 7.1 | 7.7 | 0.0 | 7.1 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 7.1 | 5.8 | 0.0 | 0.0 | 5.9 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 6.3 |
| | % Heavy Trucks | 0.0 | 1.8 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 2.5 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| | % Trucks (Total) | 0.0 | 8.9 | 7.7 | 0.0 | 8.9 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 9.5 | 8.3 | 0.0 | 0.0 | 8.3 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 8.3 |
| | Peak Hour Factor (PHF) | 0.50 | 0.96 | 0.81 | 0.00 | 0.96 | 0.57 | 0.81 | 0.77 | 0.00 | 0.72 | 0.70 | 0.88 | 0.67 | 0.00 | 0.88 | 0.75 | 0.87 | 0.71 | 0.00 | 0.78 | 0.92 |

| Monday, September 30, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MD Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| Midday (MD) Peak Hour | 11:30 AM | 1 | 155 | 1 | 0 | 157 | 1 | 2 | 9 | 0 | 12 | 5 | 124 | 4 | 0 | 133 | 1 | 2 | 0 | 0 | 3 | 305 |
| | 11:45 AM | 2 | 127 | 0 | 0 | 129 | 2 | 1 | 5 | 0 | 8 | 6 | 157 | 1 | 0 | 164 | 5 | 4 | 0 | 0 | 9 | 310 |
| | 12:00 PM | 0 | 147 | 1 | 0 | 148 | 2 | 6 | 4 | 0 | 12 | 7 | 156 | 5 | 0 | 168 | 1 | 4 | 1 | 0 | 6 | 334 |
| | 12:15 PM | 0 | 154 | 3 | 0 | 157 | 2 | 2 | 7 | 0 | 11 | 3 | 130 | 1 | 1 | 135 | 5 | 2 | 1 | 0 | 8 | 311 |
| | Peak Hour Volume | 3 | 583 | 5 | 0 | 591 | 7 | 11 | 25 | 0 | 43 | 21 | 567 | 11 | 1 | 600 | 12 | 12 | 2 | 0 | 26 | 1260 |
| | Rounded Hourly Volume | 5 | 585 | 5 | 0 | 595 | 5 | 10 | 25 | 0 | 40 | 20 | 565 | 10 | 0 | 595 | 10 | 10 | 0 | 0 | 20 | 1250 |
| | % Single Unit Trucks | 0.0 | 15.6 | 20.0 | 0.0 | 15.6 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 16.0 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.2 |
| | % Heavy Trucks | 0.0 | 3.6 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 |
| | % Trucks (Total) | 0.0 | 19.2 | 20.0 | 0.0 | 19.1 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 21.3 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.3 |
| | Peak Hour Factor (PHF) | 0.37 | 0.94 | 0.42 | 0.00 | 0.94 | 0.87 | 0.46 | 0.69 | 0.00 | 0.90 | 0.75 | 0.90 | 0.55 | 0.25 | 0.89 | 0.60 | 0.75 | 0.50 | 0.00 | 0.72 | 0.94 |

| Monday, September 30, 2019 | | From North (↓) | | | | | From East (←) | | | | | From South (↑) | | | | | From West (→) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PM Peak Hour | CTH F | | | | | Lindsay Road | | | | | CTH F | | | | | Lindsay Road | | | | | |
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Totals |
| PM Peak Hour | 4:30 PM | 4 | 278 | 3 | 0 | 285 | 7 | 6 | 8 | 0 | 21 | 9 | 389 | 15 | 0 | 413 | 2 | 4 | 2 | 0 | 8 | 727 |
| | 4:45 PM | 7 | 260 | 1 | 0 | 268 | 7 | 9 | 12 | 0 | 28 | 11 | 348 | 20 | 0 | 379 | 7 | 9 | 4 | 0 | 20 | 695 |
| | 5:00 PM | 8 | 287 | 1 | 0 | 296 | 10 | 5 | 7 | 0 | 22 | 15 | 370 | 17 | 0 | 402 | 5 | 5 | 3 | 0 | 13 | 733 |
| | 5:15 PM | 11 | 319 | 5 | 0 | 335 | 10 | 5 | 4 | 0 | 19 | 19 | 445 | 20 | 0 | 484 | 9 | 7 | 4 | 0 | 20 | 858 |
| | Peak Hour Volume | 30 | 1144 | 10 | 0 | 1184 | 34 | 25 | 31 | 0 | 90 | 54 | 1552 | 72 | 0 | 1678 | 23 | 25 | 13 | 0 | 61 | 3013 |
| | Rounded Hourly Volume | 30 | 1145 | 10 | 0 | 1185 | 35 | 25 | 30 | 0 | 90 | 55 | 1550 | 70 | 0 | 1675 | 25 | 25 | 15 | 0 | 65 | 3015 |
| | % Single Unit Trucks | 0.0 | 3.8 | 0.0 | 0.0 | 3.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.0 | 1.4 | 0.0 | 2.9 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.2 |
| | % Heavy Trucks | 0.0 | 0.9 | 20.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| | % Trucks (Total) | 0.0 | 4.6 | 20.0 | 0.0 | 4.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.7 | 1.4 | 0.0 | 3.5 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.9 |
| | Peak Hour Factor (PHF) | 0.68 | 0.90 | 0.50 | 0.00 | 0.88 | 0.85 | 0.69 | 0.65 | 0.00 | 0.80 | 0.71 | 0.87 | 0.90 | 0.00 | 0.87 | 0.64 | 0.69 | 0.81 | 0.00 | 0.76 | 0.88 |

**Peak Hour Pedestrian and Bicyclist Volumes**

| Pedestrians and Bicyclists | | Crossing North Approach | | | Crossing East Approach | | | Crossing South Approach | | | Crossing West Approach | | | Total Ped & Bike Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CTH F | | | Lindsay Road | | | CTH F | | | Lindsay Road | | | |
| | 15-Minute Start Time | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| MD | 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 11:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| PM | 4:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 3 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | 5:00 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 6 |

# Intersection Traffic Volume Report

| Count Basics | | | Page 4 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *Hourly Volume Summary - Motor Vehicle Data*

All Motor Vehicles

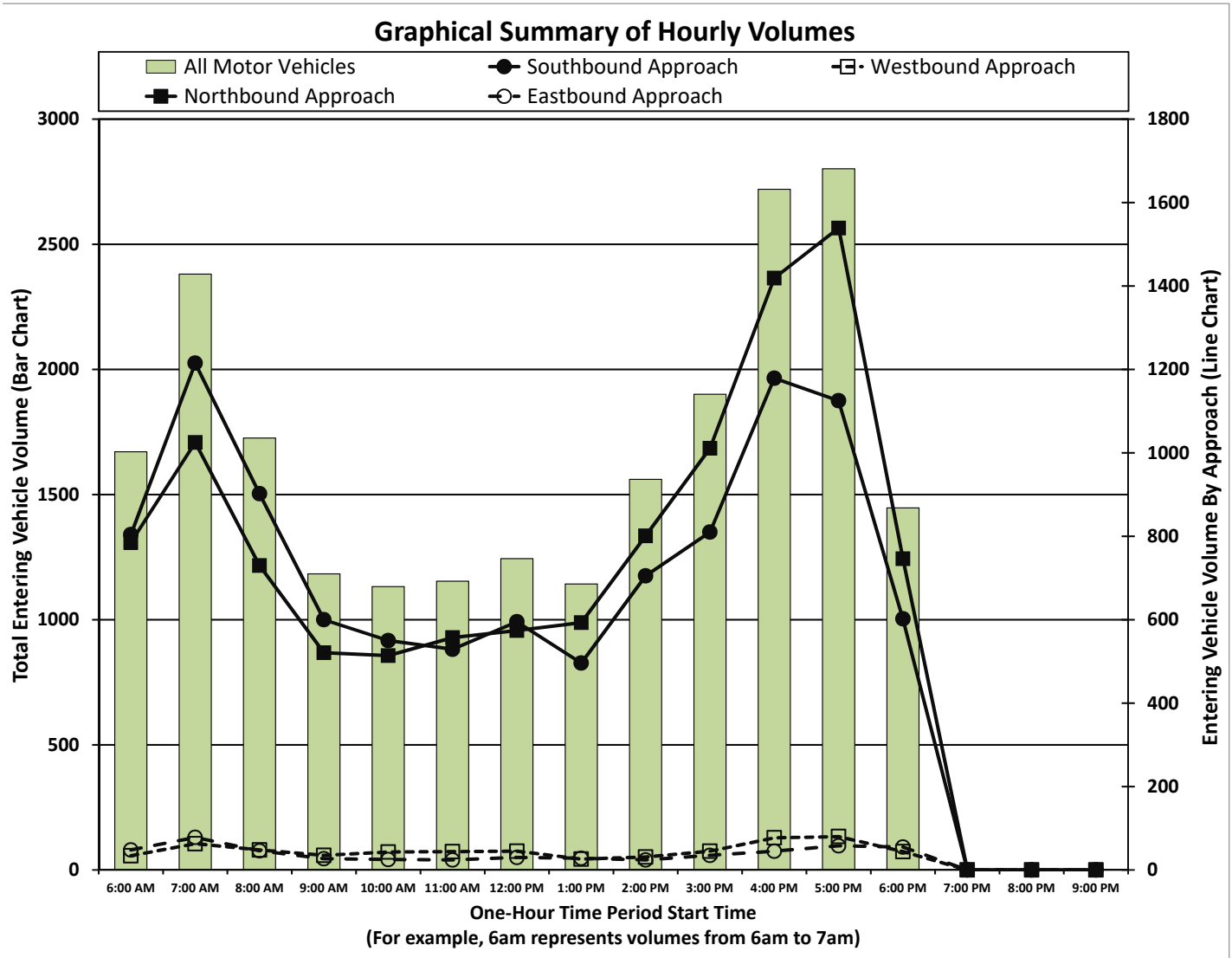


### *CTH F and Lindsay Road*

**One-Hour Motor Vehicle Data**

| One-Hour Time Period Start Time | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Vehicle Volume | Directional Volume Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | E/W | N/S |
| AM 6:00 AM | 3 | 794 | 7 | 0 | 804 | 9 | 6 | 19 | 0 | 34 | 52 | 731 | 2 | 0 | 785 | 26 | 11 | 11 | 0 | 48 | 1671 | 82 | 1589 |
| AM 7:00 AM | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 | 141 | 2240 |
| AM 8:00 AM | 5 | 893 | 4 | 0 | 902 | 11 | 9 | 28 | 0 | 48 | 17 | 707 | 6 | 0 | 730 | 15 | 18 | 13 | 0 | 46 | 1726 | 94 | 1632 |
| AM 9:00 AM | 6 | 589 | 5 | 0 | 600 | 8 | 4 | 23 | 0 | 35 | 21 | 495 | 5 | 0 | 521 | 14 | 8 | 5 | 0 | 27 | 1183 | 62 | 1121 |
| MD 10:00 AM | 3 | 543 | 3 | 1 | 550 | 5 | 11 | 27 | 0 | 43 | 24 | 481 | 8 | 1 | 514 | 11 | 13 | 1 | 0 | 25 | 1132 | 68 | 1064 |
| MD 11:00 AM | 5 | 520 | 4 | 0 | 529 | 8 | 10 | 26 | 0 | 44 | 23 | 522 | 11 | 1 | 557 | 11 | 11 | 2 | 0 | 24 | 1154 | 68 | 1086 |
| MD 12:00 PM | 6 | 583 | 6 | 0 | 595 | 6 | 21 | 18 | 0 | 45 | 19 | 543 | 10 | 2 | 574 | 11 | 16 | 3 | 0 | 30 | 1244 | 75 | 1169 |
| MD 1:00 PM | 9 | 485 | 2 | 0 | 496 | 5 | 10 | 11 | 0 | 26 | 20 | 553 | 19 | 1 | 593 | 14 | 8 | 6 | 0 | 28 | 1143 | 54 | 1089 |
| PM 2:00 PM | 15 | 683 | 7 | 0 | 705 | 5 | 9 | 17 | 0 | 31 | 25 | 762 | 13 | 1 | 801 | 6 | 11 | 7 | 0 | 24 | 1561 | 55 | 1506 |
| PM 3:00 PM | 11 | 789 | 8 | 2 | 810 | 13 | 9 | 23 | 0 | 45 | 31 | 953 | 27 | 0 | 1011 | 14 | 13 | 8 | 0 | 35 | 1901 | 80 | 1821 |
| PM 4:00 PM | 23 | 1143 | 13 | 0 | 1179 | 24 | 23 | 30 | 0 | 77 | 40 | 1328 | 51 | 0 | 1419 | 17 | 19 | 9 | 0 | 45 | 2720 | 122 | 2598 |
| PM 5:00 PM | 29 | 1079 | 17 | 0 | 1125 | 30 | 18 | 32 | 0 | 80 | 60 | 1414 | 65 | 0 | 1539 | 28 | 17 | 13 | 0 | 58 | 2802 | 138 | 2664 |
| PM 6:00 PM | 15 | 577 | 10 | 0 | 602 | 10 | 16 | 18 | 0 | 44 | 32 | 691 | 22 | 1 | 746 | 17 | 26 | 12 | 0 | 55 | 1447 | 99 | 1348 |
| PM 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 134 | 9876 | 99 | 3 | 10112 | 150 | 159 | 306 | 0 | 615 | 406 | 10155 | 247 | 7 | 10815 | 214 | 199 | 110 | 0 | 523 | 22065 | 1138 | 20927 |

## Graphical Summary of Hourly Volumes



# Intersection Traffic Volume Report

| Count Basics | | Page 5 of 13 |
|---|---|---|
| Start Date: Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | Non-Holiday | No Special Events |

## *15-Minute Motor Vehicle Data*

**All Motor Vehicles**



### *CTH F and Lindsay Road*

**15-Minute Motor Vehicle Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum | PHF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | | |
| AM Peak Period | 6:00 AM | 0 | 126 | 0 | 0 | 126 | 1 | 1 | 7 | 0 | 9 | 11 | 128 | 1 | 0 | 140 | 4 | 0 | 2 | 0 | 6 | 281 | 1671 | 0.79 |
| | 6:15 AM | 0 | 187 | 2 | 0 | 189 | 5 | 2 | 3 | 0 | 10 | 12 | 134 | 1 | 0 | 147 | 5 | 5 | 5 | 0 | 15 | 361 | 1896 | 0.89 |
| | 6:30 AM | 2 | 229 | 4 | 0 | 235 | 1 | 0 | 7 | 0 | 8 | 16 | 227 | 0 | 0 | 243 | 9 | 3 | 0 | 0 | 12 | 498 | 2126 | 0.90 |
| | 6:45 AM | 1 | 252 | 1 | 0 | 254 | 2 | 3 | 2 | 0 | 7 | 13 | 242 | 0 | 0 | 255 | 8 | 3 | 4 | 0 | 15 | 531 | 2273 | 0.88 |
| | 7:00 AM | 0 | 286 | 2 | 0 | 288 | 3 | 2 | 9 | 0 | 14 | 7 | 182 | 2 | 0 | 191 | 4 | 6 | 3 | 0 | 13 | 506 | 2381 | 0.92 |
| | 7:15 AM | 2 | 299 | 3 | 0 | 304 | 1 | 3 | 7 | 0 | 11 | 11 | 246 | 1 | 0 | 258 | 8 | 6 | 4 | 0 | 18 | 591 | 2379 | 0.92 |
| | 7:30 AM | 0 | 313 | 4 | 0 | 317 | 5 | 4 | 7 | 0 | 16 | 9 | 278 | 3 | 0 | 290 | 8 | 8 | 6 | 0 | 22 | 645 | 2242 | 0.87 |
| | 7:45 AM | 2 | 300 | 4 | 0 | 306 | 7 | 4 | 11 | 0 | 22 | 15 | 269 | 2 | 0 | 286 | 10 | 8 | 7 | 0 | 25 | 639 | 1999 | 0.78 |
| | 8:00 AM | 3 | 268 | 1 | 0 | 272 | 4 | 3 | 8 | 0 | 15 | 3 | 203 | 1 | 0 | 207 | 4 | 1 | 5 | 0 | 10 | 504 | 1726 | 0.86 |
| | 8:15 AM | 1 | 224 | 1 | 0 | 226 | 2 | 4 | 8 | 0 | 14 | 6 | 188 | 4 | 0 | 198 | 6 | 9 | 1 | 0 | 16 | 454 | 1520 | 0.84 |
| | 8:30 AM | 0 | 202 | 1 | 0 | 203 | 3 | 0 | 4 | 0 | 7 | 4 | 173 | 1 | 0 | 178 | 3 | 5 | 6 | 0 | 14 | 402 | 1354 | 0.84 |
| | 8:45 AM | 1 | 199 | 1 | 0 | 201 | 2 | 2 | 8 | 0 | 12 | 4 | 143 | 0 | 0 | 147 | 2 | 3 | 1 | 0 | 6 | 366 | 1235 | 0.84 |
| | 9:00 AM | 2 | 133 | 3 | 0 | 138 | 2 | 0 | 10 | 0 | 12 | 4 | 137 | 1 | 0 | 142 | 2 | 3 | 1 | 0 | 6 | 298 | 1183 | 0.94 |
| | 9:15 AM | 0 | 145 | 1 | 0 | 146 | 1 | 1 | 4 | 0 | 6 | 5 | 127 | 1 | 0 | 133 | 2 | 0 | 1 | 0 | 3 | 288 | 1173 | 0.93 |
| | 9:30 AM | 2 | 137 | 1 | 0 | 140 | 3 | 3 | 5 | 0 | 11 | 7 | 117 | 2 | 0 | 126 | 2 | 3 | 1 | 0 | 6 | 283 | 1156 | 0.92 |
| | 9:45 AM | 2 | 174 | 0 | 0 | 176 | 2 | 0 | 4 | 0 | 6 | 5 | 114 | 1 | 0 | 120 | 8 | 2 | 2 | 0 | 12 | 314 | 1175 | 0.94 |
| Midday Peak Period | 10:00 AM | 0 | 143 | 0 | 0 | 143 | 1 | 4 | 7 | 0 | 12 | 6 | 122 | 0 | 0 | 128 | 2 | 3 | 0 | 0 | 5 | 288 | 1132 | 0.94 |
| | 10:15 AM | 1 | 143 | 2 | 0 | 146 | 0 | 3 | 4 | 0 | 7 | 5 | 104 | 4 | 0 | 113 | 2 | 3 | 0 | 0 | 5 | 271 | 1113 | 0.92 |
| | 10:30 AM | 1 | 126 | 1 | 1 | 129 | 4 | 2 | 5 | 0 | 11 | 6 | 146 | 2 | 1 | 155 | 3 | 3 | 1 | 0 | 7 | 302 | 1112 | 0.92 |
| | 10:45 AM | 1 | 131 | 0 | 0 | 132 | 0 | 2 | 11 | 0 | 13 | 7 | 109 | 2 | 0 | 118 | 4 | 4 | 0 | 0 | 8 | 271 | 1115 | 0.91 |
| | 11:00 AM | 0 | 117 | 0 | 0 | 117 | 4 | 4 | 6 | 0 | 14 | 8 | 121 | 4 | 1 | 134 | 1 | 2 | 1 | 0 | 4 | 269 | 1154 | 0.93 |
| | 11:15 AM | 2 | 121 | 3 | 0 | 126 | 1 | 3 | 6 | 0 | 10 | 4 | 120 | 2 | 0 | 126 | 4 | 3 | 1 | 0 | 8 | 270 | 1219 | 0.91 |
| | 11:30 AM | 1 | 155 | 1 | 0 | 157 | 1 | 2 | 9 | 0 | 12 | 5 | 124 | 4 | 0 | 133 | 1 | 2 | 0 | 0 | 3 | 305 | 1260 | 0.94 |
| | 11:45 AM | 2 | 127 | 0 | 0 | 129 | 2 | 1 | 5 | 0 | 8 | 6 | 157 | 1 | 0 | 164 | 5 | 4 | 0 | 0 | 9 | 310 | 1258 | 0.94 |
| | 12:00 PM | 0 | 147 | 1 | 0 | 148 | 2 | 6 | 4 | 0 | 12 | 7 | 156 | 5 | 0 | 168 | 1 | 4 | 1 | 0 | 6 | 334 | 1244 | 0.93 |
| | 12:15 PM | 0 | 154 | 3 | 0 | 157 | 2 | 2 | 7 | 0 | 11 | 3 | 130 | 1 | 1 | 135 | 5 | 2 | 1 | 0 | 8 | 311 | 1204 | 0.97 |
| | 12:30 PM | 3 | 128 | 1 | 0 | 132 | 1 | 8 | 5 | 0 | 14 | 3 | 145 | 1 | 0 | 149 | 2 | 6 | 0 | 0 | 8 | 303 | 1167 | 0.96 |
| | 12:45 PM | 3 | 154 | 1 | 0 | 158 | 1 | 5 | 2 | 0 | 8 | 6 | 112 | 3 | 1 | 122 | 3 | 4 | 1 | 0 | 8 | 296 | 1163 | 0.97 |
| | 1:00 PM | 1 | 145 | 0 | 0 | 146 | 0 | 2 | 4 | 0 | 6 | 5 | 122 | 3 | 1 | 131 | 6 | 3 | 2 | 0 | 11 | 294 | 1143 | 0.96 |
| | 1:15 PM | 4 | 95 | 0 | 0 | 99 | 4 | 4 | 2 | 0 | 10 | 4 | 152 | 6 | 0 | 162 | 1 | 1 | 1 | 0 | 3 | 274 | 1217 | 0.83 |
| | 1:30 PM | 1 | 133 | 1 | 0 | 135 | 1 | 3 | 4 | 0 | 8 | 5 | 143 | 4 | 0 | 152 | 2 | 1 | 1 | 0 | 4 | 299 | 1309 | 0.89 |
| | 1:45 PM | 3 | 112 | 1 | 0 | 116 | 0 | 1 | 1 | 0 | 2 | 6 | 136 | 6 | 0 | 148 | 5 | 3 | 2 | 0 | 10 | 276 | 1462 | 0.81 |
| PM Peak Period | 2:00 PM | 2 | 171 | 1 | 0 | 174 | 0 | 2 | 2 | 0 | 4 | 6 | 175 | 3 | 0 | 184 | 1 | 5 | 0 | 0 | 6 | 368 | 1561 | 0.86 |
| | 2:15 PM | 4 | 153 | 0 | 0 | 157 | 2 | 2 | 8 | 0 | 12 | 5 | 186 | 4 | 0 | 195 | 0 | 1 | 1 | 0 | 2 | 366 | 1625 | 0.90 |
| | 2:30 PM | 3 | 202 | 4 | 0 | 209 | 1 | 2 | 3 | 0 | 6 | 8 | 216 | 3 | 1 | 228 | 3 | 2 | 4 | 0 | 9 | 452 | 1687 | 0.93 |
| | 2:45 PM | 6 | 157 | 2 | 0 | 165 | 2 | 3 | 4 | 0 | 9 | 6 | 185 | 3 | 0 | 194 | 2 | 3 | 2 | 0 | 7 | 375 | 1761 | 0.84 |
| | 3:00 PM | 4 | 200 | 1 | 0 | 205 | 5 | 3 | 5 | 0 | 13 | 9 | 194 | 5 | 0 | 208 | 2 | 2 | 2 | 0 | 6 | 432 | 1901 | 0.90 |
| | 3:15 PM | 2 | 166 | 2 | 0 | 170 | 1 | 2 | 4 | 0 | 7 | 9 | 228 | 3 | 0 | 240 | 4 | 4 | 3 | 0 | 11 | 428 | 2091 | 0.84 |
| | 3:30 PM | 4 | 237 | 3 | 1 | 245 | 3 | 3 | 8 | 0 | 14 | 6 | 240 | 11 | 0 | 257 | 5 | 4 | 1 | 0 | 10 | 526 | 2339 | 0.87 |
| | 3:45 PM | 1 | 186 | 2 | 1 | 190 | 4 | 1 | 6 | 0 | 11 | 7 | 291 | 8 | 0 | 306 | 3 | 3 | 2 | 0 | 8 | 515 | 2540 | 0.87 |
| | 4:00 PM | 6 | 292 | 5 | 0 | 303 | 3 | 4 | 3 | 0 | 10 | 7 | 282 | 9 | 0 | 298 | 5 | 4 | 2 | 0 | 11 | 622 | 2720 | 0.94 |
| | 4:15 PM | 6 | 313 | 4 | 0 | 323 | 7 | 4 | 7 | 0 | 18 | 13 | 309 | 7 | 0 | 329 | 3 | 2 | 1 | 0 | 6 | 676 | 2831 | 0.97 |
| | 4:30 PM | 4 | 278 | 3 | 0 | 285 | 7 | 6 | 8 | 0 | 21 | 9 | 389 | 15 | 0 | 413 | 2 | 4 | 2 | 0 | 8 | 727 | 3013 | 0.88 |
| | 4:45 PM | 7 | 260 | 1 | 0 | 268 | 7 | 9 | 12 | 0 | 28 | 11 | 348 | 20 | 0 | 379 | 7 | 9 | 4 | 0 | 20 | 695 | 2986 | 0.87 |
| | 5:00 PM | 8 | 287 | 1 | 0 | 296 | 10 | 5 | 7 | 0 | 22 | 15 | 370 | 17 | 0 | 402 | 5 | 5 | 3 | 0 | 13 | 733 | 2802 | 0.82 |
| | 5:15 PM | 11 | 319 | 5 | 0 | 335 | 10 | 5 | 4 | 0 | 19 | 19 | 445 | 20 | 0 | 484 | 9 | 7 | 4 | 0 | 20 | 858 | 2471 | 0.72 |
| | 5:30 PM | 8 | 282 | 5 | 0 | 295 | 5 | 5 | 10 | 0 | 20 | 15 | 335 | 18 | 0 | 368 | 9 | 3 | 5 | 0 | 17 | 700 | 1992 | 0.71 |
| | 5:45 PM | 2 | 191 | 6 | 0 | 199 | 5 | 3 | 11 | 0 | 19 | 11 | 264 | 10 | 0 | 285 | 5 | 2 | 1 | 0 | 8 | 511 | 1636 | 0.80 |
| | 6:00 PM | 3 | 184 | 3 | 0 | 190 | 3 | 6 | 5 | 0 | 14 | 8 | 171 | 2 | 0 | 181 | 6 | 8 | 3 | 0 | 17 | 402 | 1447 | 0.90 |
| | 6:15 PM | 3 | 150 | 2 | 0 | 155 | 0 | 2 | 3 | 0 | 5 | 6 | 197 | 8 | 0 | 211 | 2 | 5 | 1 | 0 | 8 | 379 | | |
| | 6:30 PM | 6 | 126 | 5 | 0 | 137 | 5 | 4 | 2 | 0 | 11 | 9 | 169 | 6 | 0 | 184 | 5 | 5 | 2 | 0 | 12 | 344 | | |
| | 6:45 PM | 3 | 117 | 0 | 0 | 120 | 2 | 4 | 8 | 0 | 14 | 9 | 154 | 6 | 1 | 170 | 4 | 8 | 6 | 0 | 18 | 322 | | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Totals | | 134 | 9876 | 99 | 3 | 10112 | 150 | 159 | 306 | 0 | 615 | 406 | 10155 | 247 | 7 | 10815 | 214 | 199 | 110 | 0 | 523 | 22065 | | |

**Peak Hour All Vehicle Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume | PHF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM | 7:00 AM | 4 | 1198 | 13 | 0 | 1215 | 16 | 13 | 34 | 0 | 63 | 42 | 975 | 8 | 0 | 1025 | 30 | 28 | 20 | 0 | 78 | 2381 | 0.92 |
| MD | 11:30 AM | 3 | 583 | 5 | 0 | 591 | 7 | 11 | 25 | 0 | 43 | 21 | 567 | 11 | 1 | 600 | 12 | 12 | 2 | 0 | 26 | 1260 | 0.94 |
| PM | 4:30 PM | 30 | 1144 | 10 | 0 | 1184 | 34 | 25 | 31 | 0 | 90 | 54 | 1552 | 72 | 0 | 1678 | 23 | 25 | 13 | 0 | 61 | 3013 | 0.88 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 6 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Automobile Data*

**Automobiles (Cars, Light Trucks, & Motorcycles)**



### *CTH F and Lindsay Road*

**15-Minute Automobile Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| *AM Peak Period* | 6:00 AM | 0 | 110 | 0 | 0 | 110 | 1 | 1 | 7 | 0 | 9 | 11 | 112 | 1 | 0 | 124 | 4 | 0 | 2 | 0 | 6 | 249 | 1490 |
| | 6:15 AM | 0 | 164 | 2 | 0 | 166 | 3 | 2 | 3 | 0 | 8 | 11 | 119 | 1 | 0 | 131 | 5 | 5 | 5 | 0 | 15 | 320 | 1702 |
| | 6:30 AM | 2 | 207 | 3 | 0 | 212 | 1 | 0 | 4 | 0 | 5 | 15 | 203 | 0 | 0 | 218 | 9 | 3 | 0 | 0 | 12 | 447 | 1925 |
| | 6:45 AM | 1 | 228 | 1 | 0 | 230 | 1 | 3 | 1 | 0 | 5 | 13 | 211 | 0 | 0 | 224 | 8 | 3 | 4 | 0 | 15 | 474 | 2075 |
| | 7:00 AM | 0 | 256 | 2 | 0 | 258 | 1 | 2 | 9 | 0 | 12 | 7 | 169 | 2 | 0 | 178 | 4 | 6 | 3 | 0 | 13 | 461 | 2184 |
| | 7:15 AM | 2 | 269 | 3 | 0 | 274 | 1 | 3 | 7 | 0 | 11 | 11 | 228 | 1 | 0 | 240 | 8 | 6 | 4 | 0 | 18 | 543 | 2170 |
| | 7:30 AM | 0 | 294 | 3 | 0 | 297 | 5 | 4 | 7 | 0 | 16 | 7 | 252 | 3 | 0 | 262 | 8 | 8 | 6 | 0 | 22 | 597 | 2018 |
| | 7:45 AM | 2 | 272 | 4 | 0 | 278 | 7 | 3 | 11 | 0 | 21 | 13 | 245 | 2 | 0 | 260 | 10 | 7 | 7 | 0 | 24 | 583 | 1757 |
| | 8:00 AM | 3 | 250 | 1 | 0 | 254 | 3 | 3 | 7 | 0 | 13 | 3 | 166 | 1 | 0 | 170 | 4 | 1 | 5 | 0 | 10 | 447 | 1483 |
| | 8:15 AM | 0 | 192 | 1 | 0 | 193 | 2 | 4 | 7 | 0 | 13 | 5 | 160 | 4 | 0 | 169 | 6 | 9 | 1 | 0 | 16 | 391 | 1282 |
| | 8:30 AM | 0 | 185 | 1 | 0 | 186 | 2 | 0 | 3 | 0 | 5 | 3 | 127 | 1 | 0 | 131 | 3 | 5 | 6 | 0 | 14 | 336 | 1142 |
| | 8:45 AM | 1 | 164 | 1 | 0 | 166 | 1 | 2 | 8 | 0 | 11 | 4 | 124 | 0 | 0 | 128 | 1 | 2 | 1 | 0 | 4 | 309 | 1035 |
| | 9:00 AM | 1 | 117 | 3 | 0 | 121 | 2 | 0 | 10 | 0 | 12 | 2 | 104 | 1 | 0 | 107 | 2 | 3 | 1 | 0 | 6 | 246 | 992 |
| | 9:15 AM | 0 | 126 | 0 | 0 | 126 | 1 | 1 | 4 | 0 | 6 | 5 | 110 | 1 | 0 | 116 | 2 | 0 | 1 | 0 | 3 | 251 | 963 |
| | 9:30 AM | 2 | 111 | 1 | 0 | 114 | 3 | 3 | 5 | 0 | 11 | 6 | 90 | 2 | 0 | 98 | 2 | 3 | 1 | 0 | 6 | 229 | 906 |
| | 9:45 AM | 2 | 153 | 0 | 0 | 155 | 1 | 0 | 3 | 0 | 4 | 5 | 90 | 1 | 0 | 96 | 7 | 2 | 2 | 0 | 11 | 266 | 915 |
| *Midday Peak Period* | 10:00 AM | 0 | 112 | 0 | 0 | 112 | 1 | 3 | 5 | 0 | 9 | 4 | 87 | 0 | 0 | 91 | 2 | 3 | 0 | 0 | 5 | 217 | 857 |
| | 10:15 AM | 1 | 104 | 2 | 0 | 107 | 0 | 3 | 4 | 0 | 7 | 5 | 68 | 3 | 0 | 76 | 2 | 2 | 0 | 0 | 4 | 194 | 853 |
| | 10:30 AM | 1 | 103 | 1 | 1 | 106 | 4 | 1 | 4 | 0 | 9 | 5 | 108 | 2 | 1 | 116 | 3 | 3 | 1 | 0 | 7 | 238 | 880 |
| | 10:45 AM | 1 | 95 | 0 | 0 | 96 | 0 | 2 | 11 | 0 | 13 | 5 | 84 | 2 | 0 | 91 | 4 | 4 | 0 | 0 | 8 | 208 | 898 |
| | 11:00 AM | 0 | 87 | 0 | 0 | 87 | 4 | 3 | 5 | 0 | 12 | 7 | 98 | 4 | 1 | 110 | 1 | 2 | 1 | 0 | 4 | 213 | 934 |
| | 11:15 AM | 2 | 99 | 3 | 0 | 104 | 0 | 3 | 5 | 0 | 8 | 2 | 97 | 2 | 0 | 101 | 4 | 3 | 1 | 0 | 8 | 221 | 991 |
| | 11:30 AM | 1 | 130 | 1 | 0 | 132 | 1 | 2 | 8 | 0 | 11 | 4 | 102 | 4 | 0 | 110 | 1 | 2 | 0 | 0 | 3 | 256 | 1017 |
| | 11:45 AM | 2 | 102 | 0 | 0 | 104 | 0 | 1 | 5 | 0 | 6 | 6 | 118 | 1 | 0 | 125 | 5 | 4 | 0 | 0 | 9 | 244 | 1006 |
| | 12:00 PM | 0 | 122 | 1 | 0 | 123 | 2 | 6 | 3 | 0 | 11 | 7 | 118 | 5 | 0 | 130 | 1 | 4 | 1 | 0 | 6 | 270 | 982 |
| | 12:15 PM | 0 | 117 | 2 | 0 | 119 | 1 | 2 | 5 | 0 | 8 | 2 | 108 | 1 | 1 | 112 | 5 | 2 | 1 | 0 | 8 | 247 | 948 |
| | 12:30 PM | 3 | 104 | 1 | 0 | 108 | 1 | 8 | 5 | 0 | 14 | 2 | 114 | 1 | 0 | 117 | 2 | 4 | 0 | 0 | 6 | 245 | 927 |
| | 12:45 PM | 3 | 111 | 1 | 0 | 115 | 0 | 4 | 2 | 0 | 6 | 6 | 81 | 3 | 1 | 91 | 3 | 4 | 1 | 0 | 8 | 220 | 929 |
| | 1:00 PM | 1 | 114 | 0 | 0 | 115 | 0 | 2 | 3 | 0 | 5 | 3 | 98 | 3 | 1 | 105 | 6 | 3 | 2 | 0 | 11 | 236 | 933 |
| | 1:15 PM | 4 | 87 | 0 | 0 | 91 | 4 | 4 | 1 | 0 | 9 | 3 | 114 | 6 | 0 | 123 | 1 | 1 | 1 | 0 | 3 | 226 | 989 |
| | 1:30 PM | 1 | 103 | 1 | 0 | 105 | 1 | 3 | 4 | 0 | 8 | 5 | 121 | 4 | 0 | 130 | 2 | 1 | 1 | 0 | 4 | 247 | 1060 |
| | 1:45 PM | 3 | 90 | 1 | 0 | 94 | 0 | 1 | 1 | 0 | 2 | 6 | 106 | 6 | 0 | 118 | 5 | 3 | 2 | 0 | 10 | 224 | 1216 |
| *PM Peak Period* | 2:00 PM | 2 | 135 | 0 | 0 | 137 | 0 | 2 | 2 | 0 | 4 | 5 | 137 | 3 | 0 | 145 | 1 | 5 | 0 | 0 | 6 | 292 | 1315 |
| | 2:15 PM | 4 | 119 | 0 | 0 | 123 | 2 | 2 | 5 | 0 | 9 | 4 | 156 | 4 | 0 | 164 | 0 | 0 | 1 | 0 | 1 | 297 | 1409 |
| | 2:30 PM | 3 | 179 | 3 | 0 | 185 | 1 | 2 | 3 | 0 | 6 | 8 | 191 | 3 | 1 | 203 | 3 | 2 | 4 | 0 | 9 | 403 | 1498 |
| | 2:45 PM | 6 | 135 | 1 | 0 | 142 | 1 | 3 | 4 | 0 | 8 | 6 | 158 | 3 | 0 | 167 | 2 | 2 | 2 | 0 | 6 | 323 | 1580 |
| | 3:00 PM | 4 | 178 | 1 | 0 | 183 | 5 | 2 | 5 | 0 | 12 | 8 | 173 | 5 | 0 | 186 | 2 | 2 | 1 | 0 | 5 | 386 | 1734 |
| | 3:15 PM | 1 | 150 | 1 | 0 | 152 | 1 | 2 | 3 | 0 | 6 | 7 | 208 | 2 | 0 | 217 | 4 | 4 | 3 | 0 | 11 | 386 | 1920 |
| | 3:30 PM | 4 | 215 | 3 | 1 | 223 | 3 | 3 | 7 | 0 | 13 | 5 | 224 | 11 | 0 | 240 | 5 | 3 | 1 | 0 | 9 | 485 | 2162 |
| | 3:45 PM | 1 | 171 | 2 | 1 | 175 | 4 | 1 | 6 | 0 | 11 | 4 | 271 | 8 | 0 | 283 | 3 | 3 | 2 | 0 | 8 | 477 | 2370 |
| | 4:00 PM | 6 | 270 | 5 | 0 | 281 | 3 | 3 | 2 | 0 | 8 | 7 | 257 | 9 | 0 | 273 | 5 | 3 | 2 | 0 | 10 | 572 | 2564 |
| | 4:15 PM | 6 | 291 | 3 | 0 | 300 | 7 | 3 | 7 | 0 | 17 | 10 | 288 | 7 | 0 | 305 | 3 | 2 | 1 | 0 | 6 | 628 | 2707 |
| | 4:30 PM | 4 | 261 | 2 | 0 | 267 | 7 | 6 | 8 | 0 | 21 | 9 | 374 | 15 | 0 | 398 | 2 | 4 | 1 | 0 | 7 | 693 | 2895 |
| | 4:45 PM | 7 | 251 | 0 | 0 | 258 | 7 | 8 | 12 | 0 | 27 | 11 | 336 | 19 | 0 | 366 | 7 | 9 | 4 | 0 | 20 | 671 | 2878 |
| | 5:00 PM | 8 | 280 | 1 | 0 | 289 | 10 | 5 | 7 | 0 | 22 | 15 | 359 | 17 | 0 | 391 | 5 | 5 | 3 | 0 | 13 | 715 | 2688 |
| | 5:15 PM | 11 | 299 | 5 | 0 | 315 | 9 | 5 | 4 | 0 | 18 | 18 | 426 | 20 | 0 | 464 | 8 | 7 | 4 | 0 | 19 | 816 | 2354 |
| | 5:30 PM | 8 | 272 | 4 | 0 | 284 | 4 | 5 | 10 | 0 | 19 | 14 | 324 | 18 | 0 | 356 | 9 | 3 | 5 | 0 | 17 | 676 | 1902 |
| | 5:45 PM | 2 | 176 | 6 | 0 | 184 | 5 | 3 | 11 | 0 | 19 | 9 | 252 | 10 | 0 | 271 | 5 | 1 | 1 | 0 | 7 | 481 | 1559 |
| | 6:00 PM | 2 | 177 | 2 | 0 | 181 | 3 | 6 | 5 | 0 | 14 | 8 | 160 | 2 | 0 | 170 | 5 | 8 | 3 | 0 | 16 | 381 | 1389 |
| | 6:15 PM | 3 | 145 | 2 | 0 | 150 | 0 | 2 | 3 | 0 | 5 | 6 | 187 | 8 | 0 | 201 | 2 | 5 | 1 | 0 | 8 | 364 | |
| | 6:30 PM | 6 | 120 | 5 | 0 | 131 | 5 | 4 | 2 | 0 | 11 | 8 | 165 | 6 | 0 | 179 | 5 | 5 | 2 | 0 | 12 | 333 | |
| | 6:45 PM | 3 | 115 | 0 | 0 | 118 | 2 | 4 | 8 | 0 | 14 | 8 | 146 | 6 | 1 | 161 | 4 | 8 | 6 | 0 | 18 | 311 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Totals** | | 130 | 8717 | 86 | 3 | 8936 | 133 | 150 | 281 | 0 | 564 | 363 | 8924 | 244 | 7 | 9538 | 210 | 189 | 108 | 0 | 507 | 19545 | |

**Peak Hour Automobile Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| **AM** | 7:00 AM | 4 | 1091 | 12 | 0 | 1107 | 14 | 12 | 34 | 0 | 60 | 38 | 894 | 8 | 0 | 940 | 30 | 27 | 20 | 0 | 77 | 2184 |
| **MD** | 11:30 AM | 3 | 471 | 4 | 0 | 478 | 4 | 11 | 21 | 0 | 36 | 19 | 446 | 11 | 1 | 477 | 12 | 12 | 2 | 0 | 26 | 1017 |
| **PM** | 4:30 PM | 30 | 1091 | 8 | 0 | 1129 | 33 | 24 | 31 | 0 | 88 | 53 | 1495 | 71 | 0 | 1619 | 22 | 25 | 12 | 0 | 59 | 2895 |

# Intersection Traffic Volume Report

| Count Basics | | | Page 7 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Single Unit (SU) Truck & Bus Data*

**Single Unit (SU) Trucks & Buses**



### *CTH F and Lindsay Road*

**15-Minute Single Unit (SU) Truck & Bus Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM Peak Period | 6:00 AM | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 21 | 136 |
| | 6:15 AM | 0 | 16 | 0 | 0 | 16 | 2 | 0 | 0 | 0 | 2 | 1 | 10 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 29 | 152 |
| | 6:30 AM | 0 | 16 | 1 | 0 | 17 | 0 | 0 | 3 | 0 | 3 | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 37 | 164 |
| | 6:45 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 49 | 163 |
| | 7:00 AM | 0 | 25 | 0 | 0 | 25 | 2 | 0 | 0 | 0 | 2 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 37 | 150 |
| | 7:15 AM | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 41 | 156 |
| | 7:30 AM | 0 | 16 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 17 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 36 | 163 |
| | 7:45 AM | 0 | 17 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 36 | 177 |
| | 8:00 AM | 0 | 12 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 1 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 43 | 190 |
| | 8:15 AM | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 1 | 0 | 1 | 1 | 18 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 48 | 184 |
| | 8:30 AM | 0 | 10 | 0 | 0 | 10 | 1 | 0 | 1 | 0 | 2 | 1 | 37 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 50 | 167 |
| | 8:45 AM | 0 | 30 | 0 | 0 | 30 | 1 | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 0 | 16 | 1 | 1 | 0 | 0 | 2 | 49 | 155 |
| | 9:00 AM | 1 | 11 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 37 | 140 |
| | 9:15 AM | 0 | 15 | 1 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 31 | 153 |
| | 9:30 AM | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 38 | 180 |
| | 9:45 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 0 | 14 | 0 | 0 | 14 | 1 | 0 | 0 | 0 | 1 | 34 | 192 |
| Midday Peak Period | 10:00 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 2 | 0 | 3 | 2 | 22 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 50 | 207 |
| | 10:15 AM | 0 | 32 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 1 | 0 | 25 | 0 | 1 | 0 | 0 | 1 | 58 | 202 |
| | 10:30 AM | 0 | 21 | 0 | 0 | 21 | 0 | 1 | 1 | 0 | 2 | 1 | 26 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 50 | 187 |
| | 10:45 AM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 19 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 49 | 177 |
| | 11:00 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 1 | 0 | 2 | 1 | 19 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 45 | 176 |
| | 11:15 AM | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 1 | 0 | 2 | 2 | 19 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 43 | 185 |
| | 11:30 AM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 40 | 192 |
| | 11:45 AM | 0 | 19 | 0 | 0 | 19 | 2 | 0 | 0 | 0 | 2 | 0 | 27 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 48 | 206 |
| | 12:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 54 | 224 |
| | 12:15 PM | 0 | 28 | 1 | 0 | 29 | 1 | 0 | 2 | 0 | 3 | 1 | 17 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 50 | 223 |
| | 12:30 PM | 0 | 23 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 1 | 28 | 0 | 0 | 29 | 0 | 2 | 0 | 0 | 2 | 54 | 213 |
| | 12:45 PM | 0 | 38 | 0 | 0 | 38 | 1 | 1 | 0 | 0 | 2 | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 66 | 203 |
| | 1:00 PM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 1 | 0 | 1 | 2 | 21 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 53 | 182 |
| | 1:15 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 1 | 0 | 1 | 1 | 30 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 40 | 186 |
| | 1:30 PM | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 44 | 205 |
| | 1:45 PM | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 45 | 202 |
| PM Peak Period | 2:00 PM | 0 | 28 | 1 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 57 | 201 |
| | 2:15 PM | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 3 | 0 | 3 | 1 | 25 | 0 | 0 | 26 | 0 | 1 | 0 | 0 | 1 | 59 | 179 |
| | 2:30 PM | 0 | 22 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 41 | 156 |
| | 2:45 PM | 0 | 18 | 1 | 0 | 19 | 1 | 0 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 0 | 0 | 1 | 44 | 149 |
| | 3:00 PM | 0 | 17 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 1 | 15 | 0 | 0 | 16 | 0 | 0 | 1 | 0 | 1 | 35 | 132 |
| | 3:15 PM | 1 | 15 | 1 | 0 | 17 | 0 | 0 | 1 | 0 | 1 | 2 | 15 | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 36 | 129 |
| | 3:30 PM | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 1 | 0 | 1 | 1 | 10 | 0 | 0 | 11 | 0 | 1 | 0 | 0 | 1 | 34 | 128 |
| | 3:45 PM | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 2 | 11 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 27 | 121 |
| | 4:00 PM | 0 | 12 | 0 | 0 | 12 | 0 | 1 | 0 | 0 | 1 | 0 | 18 | 0 | 0 | 18 | 0 | 1 | 0 | 0 | 1 | 32 | 111 |
| | 4:15 PM | 0 | 16 | 1 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 3 | 14 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 35 | 92 |
| | 4:30 PM | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 1 | 0 | 1 | 27 | 95 |
| | 4:45 PM | 0 | 8 | 0 | 0 | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 17 | 87 |
| | 5:00 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 13 | 88 |
| | 5:15 PM | 0 | 18 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 1 | 1 | 17 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 1 | 38 | 92 |
| | 5:30 PM | 0 | 7 | 1 | 0 | 8 | 1 | 0 | 0 | 0 | 1 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 19 | 65 |
| | 5:45 PM | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 18 | 54 |
| | 6:00 PM | 1 | 7 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 17 | 42 |
| | 6:15 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 6:30 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | |
| | 6:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 4 | 933 | 11 | 0 | 948 | 17 | 9 | 23 | 0 | 49 | 39 | 924 | 3 | 0 | 966 | 4 | 10 | 2 | 0 | 16 | 1979 | |

**Peak Hour Single Unit (SU) Truck & Buses Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| AM | 7:00 AM | 0 | 85 | 1 | 0 | 86 | 2 | 1 | 0 | 0 | 3 | 3 | 57 | 0 | 0 | 60 | 0 | 1 | 0 | 0 | 1 | 150 |
| MD | 11:30 AM | 0 | 91 | 1 | 0 | 92 | 3 | 0 | 4 | 0 | 7 | 2 | 91 | 0 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 192 |
| PM | 4:30 PM | 0 | 43 | 0 | 0 | 43 | 1 | 1 | 0 | 0 | 2 | 1 | 46 | 1 | 0 | 48 | 1 | 0 | 1 | 0 | 2 | 95 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 8 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Semi-Truck Data*

**Semi-Trucks**



### *CTH F and Lindsay Road*

**15-Minute Semi-Truck Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| *AM Peak Period* | 6:00 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 11 | 45 |
| | 6:15 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 12 | 42 |
| | 6:30 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 14 | 37 |
| | 6:45 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 35 |
| | 7:00 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 47 |
| | 7:15 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 53 |
| | 7:30 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 12 | 61 |
| | 7:45 AM | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 20 | 65 |
| | 8:00 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 14 | 53 |
| | 8:15 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | 54 |
| | 8:30 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 16 | 45 |
| | 8:45 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 45 |
| | 9:00 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | 51 |
| | 9:15 AM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 57 |
| | 9:30 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 16 | 70 |
| | 9:45 AM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 14 | 68 |
| *Midday Peak Period* | 10:00 AM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 21 | 68 |
| | 10:15 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 19 | 58 |
| | 10:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 14 | 45 |
| | 10:45 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 14 | 40 |
| | 11:00 AM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 11 | 44 |
| | 11:15 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 6 | 43 |
| | 11:30 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 9 | 51 |
| | 11:45 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 18 | 46 |
| | 12:00 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 10 | 38 |
| | 12:15 PM | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 14 | 33 |
| | 12:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 27 |
| | 12:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 31 |
| | 1:00 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 28 |
| | 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 42 |
| | 1:30 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 8 | 44 |
| | 1:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 7 | 44 |
| *PM Peak Period* | 2:00 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 19 | 45 |
| | 2:15 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 37 |
| | 2:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 8 | 33 |
| | 2:45 PM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 32 |
| | 3:00 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 11 | 35 |
| | 3:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 6 | 42 |
| | 3:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 7 | 49 |
| | 3:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 11 | 49 |
| | 4:00 PM | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 18 | 45 |
| | 4:15 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 13 | 32 |
| | 4:30 PM | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 7 | 23 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 | 21 |
| | 5:00 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 26 |
| | 5:15 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 25 |
| | 5:30 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 25 |
| | 5:45 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 12 | 23 |
| | 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 16 |
| | 6:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | |
| | 6:30 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| | 6:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| **Totals** | | 0 | 226 | 2 | 0 | 228 | 0 | 0 | 2 | 0 | 2 | 4 | 307 | 0 | 0 | 311 | 0 | 0 | 0 | 0 | 0 | 541 | |

**Peak Hour Semi-Truck Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| **AM** | 7:00 AM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 1 | 34 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 61 |
| **MD** | 11:30 AM | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 33 |
| **PM** | 4:30 PM | 0 | 21 | 1 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 25 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 49 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 9 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Heavy Vehicle Data*

**Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)**



### *CTH F and Lindsay Road*

**15-Minute Heavy Vehicle Data**

| 15-Minute Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | | |
| AM Peak Period | 6:00 AM | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 32 | 181 |
| | 6:15 AM | 0 | 23 | 0 | 0 | 23 | 2 | 0 | 0 | 0 | 2 | 1 | 15 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 41 | 194 |
| | 6:30 AM | 0 | 22 | 1 | 0 | 23 | 0 | 0 | 3 | 0 | 3 | 1 | 24 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 51 | 201 |
| | 6:45 AM | 0 | 24 | 0 | 0 | 24 | 1 | 0 | 1 | 0 | 2 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 57 | 198 |
| | 7:00 AM | 0 | 30 | 0 | 0 | 30 | 2 | 0 | 0 | 0 | 2 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 45 | 197 |
| | 7:15 AM | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 48 | 209 |
| | 7:30 AM | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 2 | 26 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 48 | 224 |
| | 7:45 AM | 0 | 28 | 0 | 0 | 28 | 0 | 1 | 0 | 0 | 1 | 2 | 24 | 0 | 0 | 26 | 0 | 1 | 0 | 0 | 1 | 56 | 242 |
| | 8:00 AM | 0 | 18 | 0 | 0 | 18 | 1 | 0 | 1 | 0 | 2 | 0 | 37 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 57 | 243 |
| | 8:15 AM | 1 | 32 | 0 | 0 | 33 | 0 | 0 | 1 | 0 | 1 | 1 | 28 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 63 | 238 |
| | 8:30 AM | 0 | 17 | 0 | 0 | 17 | 1 | 0 | 1 | 0 | 2 | 1 | 46 | 0 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 66 | 212 |
| | 8:45 AM | 0 | 35 | 0 | 0 | 35 | 1 | 0 | 0 | 0 | 1 | 0 | 19 | 0 | 0 | 19 | 1 | 1 | 0 | 0 | 2 | 57 | 200 |
| | 9:00 AM | 1 | 16 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 52 | 191 |
| | 9:15 AM | 0 | 19 | 1 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 37 | 210 |
| | 9:30 AM | 0 | 26 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 1 | 27 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 54 | 250 |
| | 9:45 AM | 0 | 21 | 0 | 0 | 21 | 1 | 0 | 1 | 0 | 2 | 0 | 24 | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 48 | 260 |
| Midday Peak Period | 10:00 AM | 0 | 31 | 0 | 0 | 31 | 0 | 1 | 2 | 0 | 3 | 2 | 35 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 71 | 275 |
| | 10:15 AM | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 1 | 0 | 37 | 0 | 1 | 0 | 0 | 1 | 77 | 260 |
| | 10:30 AM | 0 | 23 | 0 | 0 | 23 | 0 | 1 | 1 | 0 | 2 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 64 | 232 |
| | 10:45 AM | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 2 | 25 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 63 | 217 |
| | 11:00 AM | 0 | 30 | 0 | 0 | 30 | 0 | 1 | 1 | 0 | 2 | 1 | 23 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 56 | 220 |
| | 11:15 AM | 0 | 22 | 0 | 0 | 22 | 1 | 0 | 1 | 0 | 2 | 2 | 23 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 49 | 228 |
| | 11:30 AM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 1 | 22 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 49 | 243 |
| | 11:45 AM | 0 | 25 | 0 | 0 | 25 | 2 | 0 | 0 | 0 | 2 | 0 | 39 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 66 | 252 |
| | 12:00 PM | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 1 | 0 | 1 | 0 | 38 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 64 | 262 |
| | 12:15 PM | 0 | 37 | 1 | 0 | 38 | 1 | 0 | 2 | 0 | 3 | 1 | 22 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 64 | 256 |
| | 12:30 PM | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 1 | 31 | 0 | 0 | 32 | 0 | 2 | 0 | 0 | 2 | 58 | 240 |
| | 12:45 PM | 0 | 43 | 0 | 0 | 43 | 1 | 1 | 0 | 0 | 2 | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 76 | 234 |
| | 1:00 PM | 0 | 31 | 0 | 0 | 31 | 0 | 0 | 1 | 0 | 1 | 2 | 24 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 58 | 210 |
| | 1:15 PM | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 1 | 0 | 1 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 48 | 228 |
| | 1:30 PM | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 52 | 249 |
| | 1:45 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 52 | 246 |
| PM Peak Period | 2:00 PM | 0 | 36 | 1 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 76 | 246 |
| | 2:15 PM | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 3 | 0 | 3 | 1 | 30 | 0 | 0 | 31 | 0 | 1 | 0 | 0 | 1 | 69 | 216 |
| | 2:30 PM | 0 | 23 | 1 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 49 | 189 |
| | 2:45 PM | 0 | 22 | 1 | 0 | 23 | 1 | 0 | 0 | 0 | 1 | 0 | 27 | 0 | 0 | 27 | 0 | 1 | 0 | 0 | 1 | 52 | 181 |
| | 3:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 1 | 0 | 0 | 1 | 1 | 21 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 46 | 167 |
| | 3:15 PM | 1 | 16 | 1 | 0 | 18 | 0 | 0 | 1 | 0 | 1 | 2 | 20 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 42 | 171 |
| | 3:30 PM | 0 | 22 | 0 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 1 | 16 | 0 | 0 | 17 | 0 | 1 | 0 | 0 | 1 | 41 | 177 |
| | 3:45 PM | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 3 | 20 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 38 | 170 |
| | 4:00 PM | 0 | 22 | 0 | 0 | 22 | 0 | 1 | 1 | 0 | 2 | 0 | 25 | 0 | 0 | 25 | 0 | 1 | 0 | 0 | 1 | 50 | 156 |
| | 4:15 PM | 0 | 22 | 1 | 0 | 23 | 0 | 1 | 0 | 0 | 1 | 3 | 21 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 48 | 124 |
| | 4:30 PM | 0 | 17 | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 1 | 0 | 1 | 34 | 118 |
| | 4:45 PM | 0 | 9 | 1 | 0 | 10 | 0 | 1 | 0 | 0 | 1 | 0 | 12 | 1 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 24 | 108 |
| | 5:00 PM | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 18 | 114 |
| | 5:15 PM | 0 | 20 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 1 | 19 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 42 | 117 |
| | 5:30 PM | 0 | 10 | 1 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 1 | 11 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 24 | 90 |
| | 5:45 PM | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 2 | 12 | 0 | 0 | 14 | 0 | 1 | 0 | 0 | 1 | 30 | 77 |
| | 6:00 PM | 1 | 7 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 1 | 21 | 58 |
| | 6:15 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 15 | |
| | 6:30 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 6:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 11 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 4 | 1159 | 13 | 0 | 1176 | 17 | 9 | 25 | 0 | 51 | 43 | 1231 | 3 | 0 | 1277 | 4 | 10 | 2 | 0 | 16 | 2520 | |

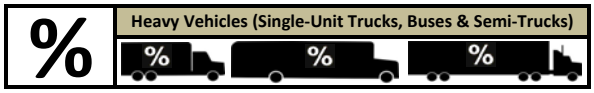
**Peak Hour Heavy Vehicle Volume Summary**

| Hourly Time Period Start Time | | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Hourly Volume |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | |
| AM | 7:00 AM | 0 | 107 | 1 | 0 | 108 | 2 | 1 | 0 | 0 | 3 | 4 | 81 | 0 | 0 | 85 | 0 | 1 | 0 | 0 | 1 | 197 |
| MD | 11:30 AM | 0 | 112 | 1 | 0 | 113 | 3 | 0 | 4 | 0 | 7 | 2 | 121 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 243 |
| PM | 4:30 PM | 0 | 53 | 2 | 0 | 55 | 1 | 1 | 0 | 0 | 2 | 1 | 57 | 1 | 0 | 59 | 1 | 0 | 1 | 0 | 2 | 118 |

# Intersection Traffic Volume Report

| *Count Basics* | | | *Page 10 of 13* |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Heavy Vehicle Percentages*




### *CTH F and Lindsay Road*

**15-Minute Heavy Vehicle Percentages**

| | 15-Minute Time Period | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Total Heavy Vehicle | Hourly Heavy Vehicle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Percent | Percent |
| AM Peak Period | 6:00 AM | 0.0 | 12.7 | 0.0 | 0.0 | 12.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.5 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.4 | 10.8 |
| | 6:15 AM | 0.0 | 12.3 | 0.0 | 0.0 | 12.2 | 40.0 | 0.0 | 0.0 | 0.0 | 20.0 | 8.3 | 11.2 | 0.0 | 0.0 | 10.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.4 | 10.2 |
| | 6:30 AM | 0.0 | 9.6 | 25.0 | 0.0 | 9.8 | 0.0 | 0.0 | 42.9 | 0.0 | 37.5 | 6.2 | 10.6 | 0.0 | 0.0 | 10.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 9.5 |
| | 6:45 AM | 0.0 | 9.5 | 0.0 | 0.0 | 9.4 | 50.0 | 0.0 | 50.0 | 0.0 | 28.6 | 0.0 | 12.8 | 0.0 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 8.7 |
| | 7:00 AM | 0.0 | 10.5 | 0.0 | 0.0 | 10.4 | 66.7 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 7.1 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.9 | 8.3 |
| | 7:15 AM | 0.0 | 10.0 | 0.0 | 0.0 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.1 | 8.8 |
| | 7:30 AM | 0.0 | 6.1 | 25.0 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.2 | 9.4 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 10.0 |
| | 7:45 AM | 0.0 | 9.3 | 0.0 | 0.0 | 9.2 | 0.0 | 25.0 | 0.0 | 0.0 | 4.5 | 13.3 | 8.9 | 0.0 | 0.0 | 9.1 | 0.0 | 12.5 | 0.0 | 0.0 | 4.0 | 8.8 | 12.1 |
| | 8:00 AM | 0.0 | 6.7 | 0.0 | 0.0 | 6.6 | 25.0 | 0.0 | 12.5 | 0.0 | 13.3 | 0.0 | 18.2 | 0.0 | 0.0 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.3 | 14.1 |
| | 8:15 AM | 100.0 | 14.3 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 12.5 | 0.0 | 7.1 | 16.7 | 14.9 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.9 | 15.7 |
| | 8:30 AM | 0.0 | 8.4 | 0.0 | 0.0 | 8.4 | 33.3 | 0.0 | 25.0 | 0.0 | 28.6 | 25.0 | 26.6 | 0.0 | 0.0 | 26.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.4 | 15.7 |
| | 8:45 AM | 0.0 | 17.6 | 0.0 | 0.0 | 17.4 | 50.0 | 0.0 | 0.0 | 0.0 | 8.3 | 0.0 | 13.3 | 0.0 | 0.0 | 12.9 | 50.0 | 33.3 | 0.0 | 0.0 | 33.3 | 15.6 | 16.2 |
| | 9:00 AM | 50.0 | 12.0 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 50.0 | 24.1 | 0.0 | 0.0 | 24.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 16.1 |
| | 9:15 AM | 0.0 | 13.1 | 100.0 | 0.0 | 13.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.4 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 17.9 |
| | 9:30 AM | 0.0 | 19.0 | 0.0 | 0.0 | 18.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 23.1 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.1 | 21.6 |
| | 9:45 AM | 0.0 | 12.1 | 0.0 | 0.0 | 11.9 | 50.0 | 0.0 | 25.0 | 0.0 | 33.3 | 0.0 | 21.1 | 0.0 | 0.0 | 20.0 | 12.5 | 0.0 | 0.0 | 0.0 | 8.3 | 15.3 | 22.1 |
| Midday Peak Period | 10:00 AM | 0.0 | 21.7 | 0.0 | 0.0 | 21.7 | 0.0 | 25.0 | 28.6 | 0.0 | 25.0 | 33.3 | 28.7 | 0.0 | 0.0 | 28.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.7 | 24.3 |
| | 10:15 AM | 0.0 | 27.3 | 0.0 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.6 | 25.0 | 0.0 | 32.7 | 0.0 | 33.3 | 0.0 | 0.0 | 20.0 | 28.4 | 23.4 |
| | 10:30 AM | 0.0 | 18.3 | 0.0 | 0.0 | 17.8 | 0.0 | 50.0 | 20.0 | 0.0 | 18.2 | 16.7 | 26.0 | 0.0 | 0.0 | 25.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.2 | 20.9 |
| | 10:45 AM | 0.0 | 27.5 | 0.0 | 0.0 | 27.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 22.9 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 19.5 |
| | 11:00 AM | 0.0 | 25.6 | 0.0 | 0.0 | 25.6 | 0.0 | 25.0 | 16.7 | 0.0 | 14.3 | 12.5 | 19.0 | 0.0 | 0.0 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.8 | 19.1 |
| | 11:15 AM | 0.0 | 18.2 | 0.0 | 0.0 | 17.5 | 100.0 | 0.0 | 16.7 | 0.0 | 20.0 | 50.0 | 19.2 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.1 | 18.7 |
| | 11:30 AM | 0.0 | 16.1 | 0.0 | 0.0 | 15.9 | 0.0 | 0.0 | 11.1 | 0.0 | 8.3 | 20.0 | 17.7 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 19.3 |
| | 11:45 AM | 0.0 | 19.7 | 0.0 | 0.0 | 19.4 | 100.0 | 0.0 | 0.0 | 0.0 | 25.0 | 0.0 | 24.8 | 0.0 | 0.0 | 23.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.3 | 20.0 |
| | 12:00 PM | 0.0 | 17.0 | 0.0 | 0.0 | 16.9 | 0.0 | 0.0 | 25.0 | 0.0 | 8.3 | 0.0 | 24.4 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.2 | 21.1 |
| | 12:15 PM | 0.0 | 24.0 | 33.3 | 0.0 | 24.2 | 50.0 | 0.0 | 28.6 | 0.0 | 27.3 | 33.3 | 16.9 | 0.0 | 0.0 | 17.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.6 | 21.3 |
| | 12:30 PM | 0.0 | 18.7 | 0.0 | 0.0 | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.3 | 21.4 | 0.0 | 0.0 | 21.5 | 0.0 | 33.3 | 0.0 | 0.0 | 25.0 | 19.1 | 20.6 |
| | 12:45 PM | 0.0 | 27.9 | 0.0 | 0.0 | 27.2 | 100.0 | 20.0 | 0.0 | 0.0 | 25.0 | 0.0 | 27.7 | 0.0 | 0.0 | 25.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.7 | 20.1 |
| | 1:00 PM | 0.0 | 21.4 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 25.0 | 0.0 | 16.7 | 40.0 | 19.7 | 0.0 | 0.0 | 19.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 18.4 |
| | 1:15 PM | 0.0 | 8.4 | 0.0 | 0.0 | 8.1 | 0.0 | 0.0 | 50.0 | 0.0 | 10.0 | 25.0 | 25.0 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 18.7 |
| | 1:30 PM | 0.0 | 22.6 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 14.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 19.0 |
| | 1:45 PM | 0.0 | 19.6 | 0.0 | 0.0 | 19.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.1 | 0.0 | 0.0 | 20.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.8 | 16.8 |
| PM Peak Period | 2:00 PM | 0.0 | 21.1 | 100.0 | 0.0 | 21.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.7 | 21.7 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.7 | 15.8 |
| | 2:15 PM | 0.0 | 22.2 | 0.0 | 0.0 | 21.7 | 0.0 | 0.0 | 37.5 | 0.0 | 25.0 | 20.0 | 16.1 | 0.0 | 0.0 | 15.9 | 0.0 | 100.0 | 0.0 | 0.0 | 50.0 | 18.9 | 13.3 |
| | 2:30 PM | 0.0 | 11.4 | 25.0 | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.6 | 0.0 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 11.2 |
| | 2:45 PM | 0.0 | 14.0 | 50.0 | 0.0 | 13.9 | 50.0 | 0.0 | 0.0 | 0.0 | 11.1 | 0.0 | 14.6 | 0.0 | 0.0 | 13.9 | 0.0 | 33.3 | 0.0 | 0.0 | 14.3 | 13.9 | 10.3 |
| | 3:00 PM | 0.0 | 11.0 | 0.0 | 0.0 | 10.7 | 0.0 | 33.3 | 0.0 | 0.0 | 7.7 | 11.1 | 10.8 | 0.0 | 0.0 | 10.6 | 0.0 | 0.0 | 50.0 | 0.0 | 16.7 | 10.6 | 8.8 |
| | 3:15 PM | 50.0 | 9.6 | 50.0 | 0.0 | 10.6 | 0.0 | 0.0 | 25.0 | 0.0 | 14.3 | 22.2 | 8.8 | 33.3 | 0.0 | 9.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.8 | 8.2 |
| | 3:30 PM | 0.0 | 9.3 | 0.0 | 0.0 | 9.0 | 0.0 | 0.0 | 12.5 | 0.0 | 7.1 | 16.7 | 6.7 | 0.0 | 0.0 | 6.6 | 0.0 | 25.0 | 0.0 | 0.0 | 10.0 | 7.8 | 7.6 |
| | 3:45 PM | 0.0 | 8.1 | 0.0 | 0.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.9 | 6.9 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 6.7 |
| | 4:00 PM | 0.0 | 7.5 | 0.0 | 0.0 | 7.3 | 0.0 | 25.0 | 33.3 | 0.0 | 20.0 | 0.0 | 8.9 | 0.0 | 0.0 | 8.4 | 0.0 | 25.0 | 0.0 | 0.0 | 9.1 | 8.0 | 5.7 |
| | 4:15 PM | 0.0 | 7.0 | 25.0 | 0.0 | 7.1 | 0.0 | 25.0 | 0.0 | 0.0 | 5.6 | 23.1 | 6.8 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 4.4 |
| | 4:30 PM | 0.0 | 6.1 | 33.3 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 50.0 | 0.0 | 12.5 | 4.7 | 3.9 |
| | 4:45 PM | 0.0 | 3.5 | 100.0 | 0.0 | 3.7 | 0.0 | 11.1 | 0.0 | 0.0 | 3.6 | 0.0 | 3.4 | 5.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 3.6 |
| | 5:00 PM | 0.0 | 2.4 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 4.1 |
| | 5:15 PM | 0.0 | 6.3 | 0.0 | 0.0 | 6.0 | 10.0 | 0.0 | 0.0 | 0.0 | 5.3 | 5.3 | 4.3 | 0.0 | 0.0 | 4.1 | 11.1 | 0.0 | 0.0 | 0.0 | 5.0 | 4.9 | 4.7 |
| | 5:30 PM | 0.0 | 3.5 | 20.0 | 0.0 | 3.7 | 20.0 | 0.0 | 0.0 | 0.0 | 5.0 | 6.7 | 3.3 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 4.5 |
| | 5:45 PM | 0.0 | 7.9 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 4.5 | 0.0 | 0.0 | 4.9 | 0.0 | 50.0 | 0.0 | 0.0 | 12.5 | 5.9 | 4.7 |
| | 6:00 PM | 33.3 | 3.8 | 33.3 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 6.1 | 16.7 | 0.0 | 0.0 | 0.0 | 5.9 | 5.2 | 4.0 |
| | 6:15 PM | 0.0 | 3.3 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | |
| | 6:30 PM | 0.0 | 4.8 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.1 | 2.4 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | |
| | 6:45 PM | 0.0 | 1.7 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.1 | 5.2 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | |
| | 7:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 7:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 8:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:00 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:15 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:30 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 9:45 PM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Totals | | 3.0 | 11.7 | 13.1 | 0.0 | 11.6 | 11.3 | 5.7 | 8.2 | 0.0 | 8.3 | 10.6 | 12.1 | 1.2 | 0.0 | 11.8 | 1.9 | 5.0 | 1.8 | 0.0 | 3.1 | 11.4 | |

**Peak Hour Heavy Vehicle Percentages Summary**

| | Hourly Time Period | From North (↓) CTH F | | | | | From East (←) Lindsay Road | | | | | From South (↑) CTH F | | | | | From West (→) Lindsay Road | | | | | Hourly Heavy Vehicle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Start Time | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Right | Thru | Left | U-Tn | Total | Percent |
| AM | 7:00 AM | 0.0 | 8.9 | 7.7 | 0.0 | 8.9 | 12.5 | 7.7 | 0.0 | 0.0 | 4.8 | 9.5 | 8.3 | 0.0 | 0.0 | 8.3 | 0.0 | 3.6 | 0.0 | 0.0 | 1.3 | 8.3 |
| MD | 11:30 AM | 0.0 | 19.2 | 20.0 | 0.0 | 19.1 | 42.9 | 0.0 | 16.0 | 0.0 | 16.3 | 9.5 | 21.3 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.3 |
| PM | 4:30 PM | 0.0 | 4.6 | 20.0 | 0.0 | 4.6 | 2.9 | 4.0 | 0.0 | 0.0 | 2.2 | 1.9 | 3.7 | 1.4 | 0.0 | 3.5 | 4.3 | 0.0 | 7.7 | 0.0 | 3.3 | 3.9 |

# Intersection Traffic Volume Report

| Count Basics | | | Page 11 of 13 |
|---|---|---|---|
| Start Date: | Monday, September 30, 2019 | Weekday | Schools in Session |
| Total Number of Hours Counted: 13 | | Non-Holiday | No Special Events |

## *15-Minute Pedestrian and Bicyclist Data*

**Pedestrians and Bicyclists**

### *CTH F and Lindsay Road*

**15-Minute Pedestrian and Bicyclist Data**

| | 15-Minute Time Period Start Time | Crossing North Approach CTH F | | | Crossing East Approach Lindsay Road | | | Crossing South Approach CTH F | | | Crossing West Approach Lindsay Road | | | 15-Min Totals | Hourly Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | Pedestrian | Bicyclist | Total | | |
| AM Peak Period | 6:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9:15 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Midday Peak Period | 10:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 10:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 10:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 10:45 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 11:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 3 |
| | 11:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 11:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 11:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 12:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 12:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| | 1:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| | 1:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| PM Peak Period | 2:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 2:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| | 2:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 7 |
| | 4:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 6 |
| | 4:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 3 |
| | 5:00 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:45 PM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 9:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Totals | | 0 | 9 | 9 | 0 | 1 | 1 | 0 | 8 | 8 | 0 | 0 | 0 | 18 | |

**Special Pedestrians**

| Pedestrian Type | None | 1 or 2 | A Few | Several | Many | Unknown |
|---|---|---|---|---|---|---|
| Pre-school Children | x | | | | | |
| Elementry School Age Children | x | | | | | |
| Visually Impaired (white cane/helper dog) | x | | | | | |
| Elderly/Disabled (except wheelchairs) | x | | | | | |
| Wheelchairs/Electric Scooters | x | | | | | |
| Other (None) | x | | | | | |

# APPENDIX C

## EXISTING TRAFFIC CONTROL ANALYSIS OUTPUTS

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.949 | | | 0.969 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Flt Permitted | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 5% | 5% | 5% | 8% | 8% | 8% | 9% | 9% | 9% |
| Adj. Flow (vph) | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 43 | 16 | 1304 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 88 | 0 | 0 | 70 | 0 | 11 | 1060 | 43 | 16 | 1304 | 5 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized





| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Vol, veh/h | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 250 | - | 225 | 250 | - | 225 |
| Veh in Median Storage, # | - | 2 | - | - | 2 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 1 | 1 | 1 | 5 | 5 | 5 | 8 | 8 | 8 | 9 | 9 | 9 |
| Mvmt Flow | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 43 | 16 | 1304 | 5 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1896 | 2461 | 652 | 1783 | 2423 | 530 | 1309 | 0 | 0 | 1103 | 0 | 0 |
| Stage 1 | 1336 | 1336 | - | 1082 | 1082 | - | - | - | - | - | - | - |
| Stage 2 | 560 | 1125 | - | 701 | 1341 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.52 | 6.52 | 6.92 | 7.6 | 6.6 | 7 | 4.26 | - | - | 4.28 | - | - |
| Critical Hdwy Stg 1 | 6.52 | 5.52 | - | 6.6 | 5.6 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.52 | 5.52 | - | 6.6 | 5.6 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.51 | 4.01 | 3.31 | 3.55 | 4.05 | 3.35 | 2.28 | - | - | 2.29 | - | - |
| Pot Cap-1 Maneuver | 43 | ~ 31 | 413 | 50 | 31 | 486 | 494 | - | - | 589 | - | - |
| Stage 1 | 163 | 222 | - | 227 | 286 | - | - | - | - | - | - | - |
| Stage 2 | 483 | 281 | - | 389 | 214 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 37 | ~ 30 | 413 | ~ 37 | 30 | 486 | 494 | - | - | 589 | - | - |
| Mov Cap-2 Maneuver | 143 | 158 | - | 168 | 154 | - | - | - | - | - | - | - |
| Stage 1 | 159 | 216 | - | 222 | 280 | - | - | - | - | - | - | - |
| Stage 2 | 430 | 275 | - | 296 | 208 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 36.4 | 34 | 0.1 | 0.1 |
| HCM LOS | E | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 494 | - | - | 199 | 193 | 589 | - | - |
| HCM Lane V/C Ratio | 0.022 | - | - | 0.437 | 0.366 | 0.028 | - | - |
| HCM Control Delay (s) | 12.5 | - | - | 36.4 | 34 | 11.3 | - | - |
| HCM Lane LOS | B | - | - | E | D | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 2 | 1.6 | 0.1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.948 | | | 0.947 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Flt Permitted | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 3% | 3% | 3% | 2% | 2% | 2% | 4% | 4% | 4% | 5% | 5% | 5% |
| Adj. Flow (vph) | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 63 | 11 | 1301 | 34 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 73 | 0 | 0 | 102 | 0 | 80 | 1761 | 63 | 11 | 1301 | 34 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized





| Intersection | |
|---|---|
| Int Delay, s/veh | 9.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Vol, veh/h | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 250 | - | 225 | 250 | - | 225 |
| Veh in Median Storage, # | - | 2 | - | - | 2 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Heavy Vehicles, % | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 | 5 |
| Mvmt Flow | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 63 | 11 | 1301 | 34 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 2378 | 3307 | 651 | 2608 | 3278 | 881 | 1335 | 0 | 0 | 1824 | 0 | 0 |
| Stage 1 | 1323 | 1323 | - | 1921 | 1921 | - | - | - | - | - | - | - |
| Stage 2 | 1055 | 1984 | - | 687 | 1357 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.56 | 6.56 | 6.96 | 7.54 | 6.54 | 6.94 | 4.18 | - | - | 4.2 | - | - |
| Critical Hdwy Stg 1 | 6.56 | 5.56 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.56 | 5.56 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.53 | 4.03 | 3.33 | 3.52 | 4.02 | 3.32 | 2.24 | - | - | 2.25 | - | - |
| Pot Cap-1 Maneuver | 18 | ~ 8 | 409 | ~ 12 | ~ 9 | 290 | 502 | - | - | 319 | - | - |
| Stage 1 | 163 | 222 | - | 69 | 113 | - | - | - | - | - | - | - |
| Stage 2 | 239 | 104 | - | 403 | 215 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | ~ 9 | ~ 6 | 409 | ~ 6 | ~ 7 | 290 | 502 | - | - | 319 | - | - |
| Mov Cap-2 Maneuver | 80 | 67 | - | 53 | 71 | - | - | - | - | - | - | - |
| Stage 1 | 137 | 214 | - | 58 | 95 | - | - | - | - | - | - | - |
| Stage 2 | 122 | 87 | - | 314 | 208 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 96.3 | 239 | 0.6 | 0.1 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 502 | - | - | 105 | 87 | 319 | - | - |
| HCM Lane V/C Ratio | 0.158 | - | - | 0.703 | 1.176 | 0.036 | - | - |
| HCM Control Delay (s) | 13.5 | - | - | 96.3 | 239 | 16.7 | - | - |
| HCM Lane LOS | B | - | - | F | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | 3.7 | 7.2 | 0.1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

# APPENDIX D

## TRAFFIC SIGNAL WARRANT DESCRIPTIONS

***Traffic Signal Warrant Descriptions***

***Warrant 1, Eight Hour Vehicular Volume*** *states that a traffic signal may be considered if one of the following conditions exists for at least eight hours of an average day:*

A. *The vehicles per hour given on the major street meet or exceed 500 and the vehicles per hour on the minor street meet or exceed 150; or*

B. *The vehicles per hour given on the major street meet or exceed 750 and the vehicles per hour on the minor street meet or exceed 75.*

*Or if the following two conditions exist for eight hours of an average day:*

A. *The vehicles per hour on the major street and minor street meet or exceed 80% of the values stated in A (400 major, 120 minor); and*

B. *The vehicles per hour on the major street and minor street meet or exceed 80% of the values stated in B (600 major, 60 minor).*

***Warrant 2, Four Hour Volume*** *is satisfied if during any four hours of an average day the major street and minor street volumes fall above the 100 percent four-hour curves shown on the graph in the Appendix of this report.*

***Warrant 3, Peak Hour Volume*** *is satisfied if during any hour of an average day the major street and minor street volumes fall above the 100 percent peak hour curves shown on the graph in the Appendix of this report. Note that this signal warrant is typically applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.*

***Warrant 4, Pedestrian Volume*** *states that a traffic signal may be considered at an intersection or midblock crossing if one of the following conditions exists for an average day:*

A. *For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in the Appendix of this report; or*

B. *For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in the Appendix of this report.*

***Warrant 5, School Crossing*** *is satisfied if during any hour of an average day there are inadequate gaps in the traffic stream on the major street as related to the number and size of groups of school crossing children that the number of gaps during the duration when the children are crossing is less than the number of minutes in the same period and there are a minimum of 20 students during the highest crossing hour.*

***Warrant 6, Coordinated Signal System*** *is satisfied if the adjacent traffic signals are so far apart that they do not provide adequate vehicle platooning (one-way or two-way streets), and the existing and proposed traffic signals would collectively provide a progressive operation (two-way streets). This warrant shall not be applied at locations where the nearest traffic signal on the major street is less than 300 feet.*

***Warrant 7, Crash Experience*** *states that a traffic signal may be considered if an engineering study finds that all of the following criteria are met:*

A. *Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and*
B. *Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and*
C. *For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Warrant 1 Condition A, or the vph in both of the 80 percent columns of Warrant 1 Condition B exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection.*

***Warrant 8, Roadway Network*** *is satisfied if the common intersection of two or more major routes meets one or both of the following criteria:*

A. *The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or*

B. *The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).*

*A major route as used in this signal warrant shall have at least one of the following characteristics:*

A. *It is part of the street or highway system that serves as the principal roadway network for through traffic flow.*

B. *It includes rural or suburban highways outside, entering, or traversing a city.*

C. *It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.*

***Warrant 9, Intersection Near a Grade Crossing*** *is satisfied if none of the previous eight warrants are met, but the proximity to the intersection of a grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal.*

# APPENDIX E

## TRAFFIC SIGNAL CONTROL ANALYSIS OUTPUTS

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (vph) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.949 | | | 0.969 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1764 | 0 | 0 | 1708 | 0 | 1671 | 3343 | 1495 | 1656 | 3312 | 1482 |
| Flt Permitted | | 0.892 | | | 0.783 | | 0.169 | | | 0.245 | | |
| Satd. Flow (perm) | 0 | 1592 | 0 | 0 | 1373 | 0 | 297 | 3343 | 1495 | 427 | 3312 | 1482 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 62% | 100% | 100% | 62% |
| Heavy Vehicles (%) | 1% | 1% | 1% | 5% | 5% | 5% | 8% | 8% | 8% | 9% | 9% | 9% |
| Adj. Flow (vph) | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 88 | 0 | 0 | 70 | 0 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 43.9% | 43.9% | | 43.9% | 43.9% | | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | Min | Min | Min | Min | Min | Min |
| v/c Ratio | | 0.26 | | | 0.24 | | 0.06 | 0.48 | 0.03 | 0.06 | 0.60 | 0.00 |
| Control Delay | | 21.3 | | | 21.5 | | 5.7 | 7.2 | 4.9 | 5.5 | 8.5 | 4.7 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 21.3 | | | 21.5 | | 5.7 | 7.2 | 4.9 | 5.5 | 8.5 | 4.7 |
| 90th %ile Green (s) | 11.6 | 11.6 | | 11.6 | 11.6 | | 38.2 | 38.2 | 38.2 | 38.2 | 38.2 | 38.2 |
| 90th %ile Term Code | Gap | Gap | | Hold | Hold | | Hold | Hold | Hold | Gap | Gap | Gap |
| 70th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 |

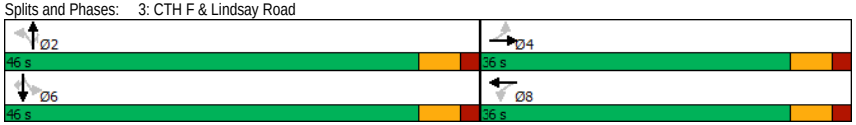




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70th %ile Term Code | Min | Min | | Min | Min | | Hold | Hold | Hold | Gap | Gap | Gap |
| 50th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 26.4 | 26.4 | 26.4 | 26.4 | 26.4 | 26.4 |
| 50th %ile Term Code | Min | Min | | Min | Min | | Hold | Hold | Hold | Gap | Gap | Gap |
| 30th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 | 25.9 |
| 30th %ile Term Code | Min | Min | | Hold | Hold | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| 10th %ile Green (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| 10th %ile Term Code | Skip | Skip | | Skip | Skip | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| Queue Length 50th (ft) | | 21 | | | 17 | | 1 | 91 | 3 | 2 | 125 | 0 |
| Queue Length 95th (ft) | | 64 | | | 55 | | 7 | 141 | 11 | 8 | 195 | 3 |
| Internal Link Dist (ft) | | 536 | | | 588 | | | 721 | | | 667 | |
| Turn Bay Length (ft) | | | | | | | 250 | | 225 | 250 | | 225 |
| Base Capacity (vph) | | 1053 | | | 908 | | 242 | 2725 | 1218 | 348 | 2700 | 1208 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.08 | | | 0.08 | | 0.05 | 0.39 | 0.02 | 0.05 | 0.48 | 0.00 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 82 | |
| Actuated Cycle Length: 49.2 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| 90th %ile Actuated Cycle: 61.8 | |
| 70th %ile Actuated Cycle: 52.1 | |
| 50th %ile Actuated Cycle: 48.4 | |
| 30th %ile Actuated Cycle: 47.9 | |
| 10th %ile Actuated Cycle: 36 | |

Splits and Phases: 3: CTH F & Lindsay Road



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Future Volume (veh/h) | 20 | 30 | 30 | 35 | 15 | 15 | 10 | 975 | 40 | 15 | 1200 | 5 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1885 | 1885 | 1885 | 1826 | 1826 | 1826 | 1781 | 1781 | 1781 | 1767 | 1767 | 1767 |
| Adj Flow Rate, veh/h | 22 | 33 | 33 | 38 | 16 | 16 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 1 | 1 | 1 | 5 | 5 | 5 | 8 | 8 | 8 | 9 | 9 | 9 |
| Cap, veh/h | 142 | 158 | 121 | 245 | 100 | 66 | 262 | 1847 | 824 | 324 | 1832 | 817 |
| Arrive On Green | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Sat Flow, veh/h | 224 | 833 | 634 | 645 | 527 | 347 | 401 | 3385 | 1510 | 490 | 3357 | 1497 |
| Grp Volume(v), veh/h | 88 | 0 | 0 | 70 | 0 | 0 | 11 | 1060 | 27 | 16 | 1304 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1691 | 0 | 0 | 1519 | 0 | 0 | 401 | 1692 | 1510 | 490 | 1678 | 1497 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 9.4 | 0.4 | 1.0 | 13.1 | 0.0 |
| Cycle Q Clear(g_c), s | 1.9 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 14.1 | 9.4 | 0.4 | 10.4 | 13.1 | 0.0 |
| Prop In Lane | 0.25 | | 0.37 | 0.54 | | 0.23 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 421 | 0 | 0 | 411 | 0 | 0 | 262 | 1847 | 824 | 324 | 1832 | 817 |
| V/C Ratio(X) | 0.21 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.04 | 0.57 | 0.03 | 0.05 | 0.71 | 0.00 |
| Avail Cap(c_a), veh/h | 1187 | 0 | 0 | 1093 | 0 | 0 | 396 | 2980 | 1329 | 489 | 2956 | 1318 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.7 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 12.9 | 6.8 | 4.8 | 10.3 | 7.7 | 4.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.1 | 1.4 | 0.1 | 0.1 | 2.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.9 | 0.0 | 0.0 | 15.7 | 0.0 | 0.0 | 13.0 | 7.1 | 4.8 | 10.3 | 8.2 | 4.7 |
| LnGrp LOS | B | A | A | B | A | A | B | A | A | B | A | A |
| Approach Vol, veh/h | | 88 | | | 70 | | | 1098 | | | 1323 | |
| Approach Delay, s/veh | | 15.9 | | | 15.7 | | | 7.1 | | | 8.2 | |
| Approach LOS | | B | | | B | | | A | | | A | |

| Timer - Assigned Phs | 2 | 4 | 6 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 30.8 | 14.6 | 30.8 | 14.6 |
| Change Period (Y+Rc), s | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting (Gmax), s | 40.0 | 30.0 | 40.0 | 30.0 |
| Max Q Clear Time (g_c+I1), s | 16.1 | 3.9 | 15.1 | 3.5 |
| Green Ext Time (p_c), s | 7.4 | 0.4 | 9.7 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 8.2 |
| HCM 6th LOS | A |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (vph) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 250 | | 225 | 250 | | 225 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 0.948 | | | 0.947 | | | | 0.850 | | | 0.850 |
| Flt Protected | | 0.988 | | | 0.984 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1728 | 0 | 0 | 1736 | 0 | 1736 | 3471 | 1553 | 1719 | 3438 | 1538 |
| Flt Permitted | | 0.911 | | | 0.860 | | 0.179 | | | 0.093 | | |
| Satd. Flow (perm) | 0 | 1593 | 0 | 0 | 1517 | 0 | 327 | 3471 | 1553 | 168 | 3438 | 1538 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 55 | | | 55 | |
| Link Distance (ft) | | 616 | | | 668 | | | 801 | | | 747 | |
| Travel Time (s) | | 12.0 | | | 13.0 | | | 9.9 | | | 9.3 | |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 62% | 100% | 100% | 62% |
| Heavy Vehicles (%) | 3% | 3% | 3% | 2% | 2% | 2% | 4% | 4% | 4% | 5% | 5% | 5% |
| Adj. Flow (vph) | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 73 | 0 | 0 | 102 | 0 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Turn Type | Perm | NA | | Perm | NA | | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | | 8 | 8 | | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| Minimum Split (s) | 24.0 | 24.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 36.0 | 36.0 | | 36.0 | 36.0 | | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 43.9% | 43.9% | | 43.9% | 43.9% | | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% | 56.1% |
| Maximum Green (s) | 30.0 | 30.0 | | 30.0 | 30.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | | Min | Min | Min | Min | Min | Min |
| v/c Ratio | | 0.27 | | | 0.40 | | 0.35 | 0.72 | 0.04 | 0.09 | 0.53 | 0.02 |
| Control Delay | | 25.4 | | | 28.1 | | 11.3 | 9.9 | 4.6 | 7.1 | 7.0 | 4.6 |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 25.4 | | | 28.1 | | 11.3 | 9.9 | 4.6 | 7.1 | 7.0 | 4.6 |
| 90th %ile Green (s) | 12.8 | 12.8 | | 12.8 | 12.8 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 90th %ile Term Code | Hold | Hold | | Gap | Gap | | Max | Max | Max | Hold | Hold | Hold |
| 70th %ile Green (s) | 10.6 | 10.6 | | 10.6 | 10.6 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |

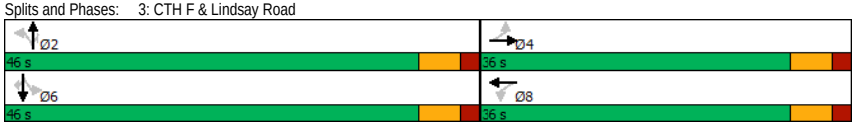


Lanes, Volumes, Timings
3: CTH F & Lindsay Road
2019 Exist Signal - PM.syn
10/09/2019

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 70th %ile Term Code | Hold | Hold | | Gap | Gap | | Max | Max | Max | Hold | Hold | Hold |
| 50th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 50th %ile Term Code | Min | Min | | Min | Min | | Max | Max | Max | Hold | Hold | Hold |
| 30th %ile Green (s) | 10.0 | 10.0 | | 10.0 | 10.0 | | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |
| 30th %ile Term Code | Hold | Hold | | Min | Min | | Max | Max | Max | Hold | Hold | Hold |
| 10th %ile Green (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 |
| 10th %ile Term Code | Skip | Skip | | Skip | Skip | | Dwell | Dwell | Dwell | Dwell | Dwell | Dwell |
| Queue Length 50th (ft) | | 24 | | | 35 | | 12 | 209 | 4 | 1 | 122 | 2 |
| Queue Length 95th (ft) | | 56 | | | 73 | | 45 | 326 | 14 | 8 | 190 | 9 |
| Internal Link Dist (ft) | | 536 | | | 588 | | | 721 | | | 667 | |
| Turn Bay Length (ft) | | | | | | | 250 | | 225 | 250 | | 225 |
| Base Capacity (vph) | | 765 | | | 728 | | 231 | 2462 | 1101 | 119 | 2438 | 1091 |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.10 | | | 0.14 | | 0.35 | 0.72 | 0.04 | 0.09 | 0.53 | 0.02 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 82 | |
| Actuated Cycle Length: 62.5 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| 90th %ile Actuated Cycle: 64.8 | |
| 70th %ile Actuated Cycle: 62.6 | |
| 50th %ile Actuated Cycle: 62 | |
| 30th %ile Actuated Cycle: 62 | |
| 10th %ile Actuated Cycle: 61 | |

Splits and Phases: 3: CTH F & Lindsay Road




TADI
Synchro 10 Report
C:\Egnyte\Shared\WI\2419 CTH F with Lindsay Road (Wauk County)\Capacity Analysis\2019 Exist Signal - PM.syn

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Future Volume (veh/h) | 15 | 25 | 25 | 30 | 25 | 35 | 70 | 1550 | 55 | 10 | 1145 | 30 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1841 | 1841 | 1841 | 1826 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 17 | 28 | 28 | 34 | 28 | 40 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 4 | 5 | 5 | 5 |
| Cap, veh/h | 111 | 137 | 106 | 141 | 107 | 105 | 289 | 2175 | 970 | 188 | 2158 | 962 |
| Arrive On Green | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Sat Flow, veh/h | 196 | 829 | 637 | 340 | 648 | 637 | 408 | 3497 | 1560 | 256 | 3469 | 1547 |
| Grp Volume(v), veh/h | 73 | 0 | 0 | 102 | 0 | 0 | 80 | 1761 | 39 | 11 | 1301 | 21 |
| Grp Sat Flow(s),veh/h/ln | 1662 | 0 | 0 | 1624 | 0 | 0 | 408 | 1749 | 1560 | 256 | 1735 | 1547 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 21.7 | 0.5 | 1.9 | 12.8 | 0.3 |
| Cycle Q Clear(g_c), s | 2.1 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 21.1 | 21.7 | 0.5 | 23.6 | 12.8 | 0.3 |
| Prop In Lane | 0.23 | | 0.38 | 0.33 | | 0.39 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 354 | 0 | 0 | 354 | 0 | 0 | 289 | 2175 | 970 | 188 | 2158 | 962 |
| V/C Ratio(X) | 0.21 | 0.00 | 0.00 | 0.29 | 0.00 | 0.00 | 0.28 | 0.81 | 0.04 | 0.06 | 0.60 | 0.02 |
| Avail Cap(c_a), veh/h | 937 | 0 | 0 | 923 | 0 | 0 | 324 | 2476 | 1104 | 210 | 2456 | 1095 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.5 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 | 12.9 | 8.1 | 4.1 | 17.1 | 6.5 | 4.1 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.5 | 1.9 | 0.0 | 0.1 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.6 | 4.0 | 0.1 | 0.1 | 2.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.8 | 0.0 | 0.0 | 21.3 | 0.0 | 0.0 | 13.4 | 10.0 | 4.2 | 17.2 | 6.8 | 4.1 |
| LnGrp LOS | C | A | A | C | A | A | B | B | A | B | A | A |
| Approach Vol, veh/h | | 73 | | | 102 | | | 1880 | | | 1333 | |
| Approach Delay, s/veh | | 20.8 | | | 21.3 | | | 10.0 | | | 6.8 | |
| Approach LOS | | C | | | C | | | B | | | A | |

| Timer - Assigned Phs | 2 | 4 | 6 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 41.1 | 15.4 | 41.1 | 15.4 |
| Change Period (Y+Rc), s | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting (Gmax), s | 40.0 | 30.0 | 40.0 | 30.0 |
| Max Q Clear Time (g_c+I1), s | 23.7 | 4.1 | 25.6 | 4.9 |
| Green Ext Time (p_c), s | 11.5 | 0.3 | 7.4 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 9.3 |
| HCM 6th LOS | A |

**A motion was made and seconded (J. Wamser, B. Dziwulski) to approve the 2020-2021 Class A and Class B Liquor Licenses with the noted contingencies**. Motion Passed: 6-For, 0-Against.

6. Lindsay Road and Redford Boulevard (CTH F) intersection Study
   6.1 Discussion and Possible Action to Begin Discussions with Waukesha County Regarding Final Design of the Intersection Improvements and Establishing Funding or Other Partnership Agreements for the Intersection Improvements.
   6.2 Discussion and Possible Action to Authorize Traffic Analysis & Design, Inc. to Complete an Amended Study in accordance with the Agreement in the amount of $15,912.

Ms. Wagner stated there was discussion at the last meeting regarding the intersection and improvements, and that an additional study of the intersection be done for possible additional alternatives and traffic counts when we factor in future developments that will occur near the intersection.

Ms. Wagner stated John Campbell from Traffic & Design Incorporated went back and put together a scope of services which included a two way stop control (which is what it is currently), a restricted R cut, restricted crossing u turn, traffic signals, and roundabout. The cost for the study was $15,912.00, and Ms. Wagner was looking for authorization of the study. Mr. Campbell stated it will look at eight different developments that are a potential in the area, taking into account all potential future traffic so the best solution is identified since it is a safety issue.

Ms. Wagner stated there has been one additional accident since the last conversation and she took the intersection to the Sheriffs Safety Committee but the discussion was tabled. The County was in attendance and they are doing a speed study along the corridor and wanted to see information from the speed study and to see the follow up study that we are completing to look at the consideration. Ms. Wagner stated she felt they were not in support of signals at the intersection and that the County is firm in its stance that their preferred option is the R-cut. August 12 is the next meeting which puts jeopardy on applying for a highway safety improvement grant because it is due in August and timing is restricted. Ms. Wagner stated we can always apply for it in March, since it opens up twice a year.

Ms. Wagner stated she is asking for $15,912 to be reallocated to complete the study. There currently is nothing in the budget and since a large road project was delayed, we could take from those funds.

Mayor Bierce asked about the R-cut intersection and why the County was so in favor of it. Ms. Wagner stated Redford Blvd. and Hwy F is a major north/south corridor that is conveying the north/south traffic efficiently. There are limited driveways and intersections in this corridor. Ms. Wagner stated they requested to have the speed limit reduced but the County is not supporting that aspect and they feel people are going to go what speed they feel and perceive to be the correct speed. Therefor the County isn't in favor of reducing the speed limit. The County did understand the impact of the Lindsay Road intersection, but it is a low volume roadway and it doesn't justify signals. The study to date doesn't support signals at the intersection and they feel the R-cut is the proper use. It is typically used when you have a high volume roadway going north/south and then a low volume coming into it (east/west) and it allows for traffic to safely make maneuvers and avoid high

impact side crashes. Mayor Bierce asked if this is a state road or a county road. Ms. Wagner stated this is a County road and we have to get the county's approval to do anything. Ms. Wagner stated at this time funding hasn't been discussed and she believes we will have a share in whatever costs are associated with intersection.

Mr. Grosch asked what other development would be added to the area or the study. Ms. Wagner stated the rest of Woodleaf Reserve, a five acre development along Duplainville Road, 18 lots where Pro-Bark Mulch and Topsoil is located, the city Sports Complex, Swan View Development on Swan and Lindsay and the additional single family homes on the north side of Lindsay Road east of Swan Road.

Danielle Rath (N45W22858 Charlotte Way) stated she has almost been in several accidents at this intersection and finds it difficult to judge the distance of the cars coming at high speeds. She was very optimistic will all the development going on that it will be high volume in both directions and agrees more data needs to be collected.

George Evert (N45 W24434 Lindsay Road) stated from Redford Blvd. north to the Village of Sussex there is only one piece of land that will be able to be built on the east side of the road, as everything else is quarry land. Mr. Evert stated that when Halquist put high power in the quarry, the electric company dropped trees and left the logs in the river and they have been there for 15 years. If they would be removed there would not be flooding and a roundabout could be put in.

Dave Swan (W239N4050 Swan Road) stated he was disappointed with a round-about and asked why it would be brought forward. Due to the river and the amount of land needed for a roundabout, it would be impossible. He felt the R-cut would be safer. Mr. Swan felt that during busy times people are taking their lives into their own hands.

Brian Miller (W229N4328 Baker Court) stated his son was t-boned a month ago and was rolled over onto the driver's side. The speeds are insane and people drive like they are on I-94. It needs to be slowed down and feels it is a death trap.

Bruce Barnes, Waukesha County Traffic Engineer, stated he wants to reemphasize the perspective the County is coming from. Thus we are in full agreement on the need for safety improvements as the collision data is there. The need for safety is valid and they have done a speed study in the past. The County does concur it is high speed and more so than what is posted, but this issue is not a traffic engineering challenge, it is a police and sheriff function. Traffic signals sounds like a simple solution, but the County is opposed to it due to being a major corridor. A solution the R-cut does offer is you can go a safe distance down to make a U-turn and that process is emphasized by the gaps in traffic that are created by signals upstream or downstream of traffic. Mr. Barnes added that at the safety meeting that the police hold every three months, it was noted by collision records in Madison that several of these have been put in Sheboygan County. People who were opposed to them are now people that use them and love them. Mr. Barnes commented that Waukesha County has no funding allocated for this project now or in the near future.

Mayor Bierce asked why they aren't in favor of reducing the speeds. Mr. Barnes stated they need rigid enforcement and they can't change the posted speed limit in small areas. It has to be

in large segments instead. The previous study that the County had done showed 50-55mph is what 85 percent of people travel and it is not the measure but is a component.

Discussion took place regarding why a roundabout is not recommended. Mr. Barnes stated roundabouts are used when there are similar relative volumes of traffic on cross and main streets and balanced volumes from all four approaches. Mr. Dziwulski stated he is in favor of the R-cut, but feels the speed limit should be lowered to 45 mph. Mr. Campbell suggested they could get the study done quicker so the information could be submitted for the grant by taking out the roundabout analysis and just doing a traffic count at the sport complex driveway. This way they could have accurate information about cars coming out. The study would then be done right away so Mr. Barnes and the Council would have the information they need to make decisions about whether to pursue the HSIP (Highway Safety Improvement Program) funding for an R-cut or traffic signal. Ms. Wagner stated she did not believe the Sports Complex was fully operational right now due to Covid 19, but there may be some use of the facility.

A female resident from Victoria Station asked if Klein Dickert was operational yet because once that opens it will increase traffic. Ms. Wagner stated Klein Dickert was included in the study.

Mr. Bergman suggested laser to sense traffic from the other direction. Ms. Brown stated she didn't think that would be this is the best taxpayer funded study, when it looks like the R-cut is the solution. She would not be in favor to throw more money into an additional study.

Jeff Kara stated he was an advocate in the beginning to get the study done and get updated information so we were making good decisions. He felt the R-cut was probably where it will end up and he felt the study needs to be done quickly to get the funding so we can move on this as it is a public safety issue. Mr. Kara stated the R-cut will be safer than what we have now. Ms. Wagner stated the traffic analysis, operation of the R-cut and future projection need to be done to apply for the HSIP grant.

**A motion was made and seconded (J. Kara, J. Wamser) to authorize the Director of Public Works and the City Administrator to begin discussions with Waukesha County regarding the final design of the intersection improvements and establishing funding or other partnership agreements for the intersection improvements and applying for the HSIP grant in August and to authorize Traffic Analysis Design to complete an updated study per the discussion, amending the requirements as requested by the Director of Public Works not to exceed the amount of $15,912 and reallocating funds from the Roundy's Project.**

Ms. Wagner asked the consultant to also include the estimated budgetary numbers for an R cut and he agreed to do so.

**The original maker of the motion and seconder revised the motion to include getting estimated budgetary numbers**. Motion Passed: 6-For, 0-Against**.**

7. Discussion and Possible Action Regarding the Clean Water Fund Program (CWFP) for FRWPCC Phosphorus Reduction Project.
   - 7.1 **Resolution 20-06-11** Declaring Official Intent to Reimburse Expenditures for Clean Water Fund Program Update the FWRPCC for Phosphorus Reduction.
   - 7.2 **Resolution 20-06-10** Acknowledging Magdelene Wagner, Director of Public Works, as Authorized Representative for the City of Pewaukee Update of the FRWPCC for Phosphorus

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 7.

**DATE:** August 19, 2019

**DEPARTMENT:** PW - Engineering

**PROVIDED BY:** Jeffrey Weigel, PE Public Works Director

***SUBJECT:***

Discussion and Possible Action to Authorize and Pay for the Intersection Safety Study of Lindsay Road and CTH F (Redford Blvd.) as a Part of Their Overall Intersection Safety Study this Year [Weigel]

***BACKGROUND:***

Over the past several years, citizens and Alderpersons have asked us to investigate installing traffic signals in the CTH F & Lindsay Road intersection. I was recently asked by a representative of the Victoria Station homeowners association how to start the process to get signals in the intersection, and I said it has been discussed over the years but not followed through. I suggested contacting the Alderpersons representing the district as well as the Waukesha County Supervisor for the district, both of whom would be important for support at their respective agencies. County Supervisor Swan contacted Waukesha County DPW, and found that similar safety studies were underway in other County intersections. Amdinistratively, the County could add our request as an addendum to their current study agreement, and I indicated that I thought Pewaukee would be willing to fund this additional study work ($4,984.00). If the Council were to authorize this funding this year, the work would be completed by the end of fall, 2019.

***FINANCIAL IMPACT:***

We do not have any account specific to traffic studies in the current budget. The Council could authorize us to "overspend" our Outside Engineering account or approve funding from another source, such as the Contingency account.

The Outside Engineering account is always a guess at budget time, essentially consisting of Engineering Consultant Fees associated with development review (paid by developers) and the rare non-development engineering function not associated with a capital project (bridge inspections). By using the tem "Overspending" the account, I am simply saying that in October 2018, I guessed that we would be spending about $35,000 on Outside Engineering, not including $5,000 for this intersection study. As of 7/31/19 we have charged only about $5,000 of the $35,000 budgeted in this account and it is unknown, even as of August 2019, what developments will get under construction this year--the two major ones are the Swan View Farms Estates and The Glen at Parkway Ridge.

***RECOMMENDED MOTION:***

Common Council authorizes the City of Pewaukee to have Waukesha County include the safety analysis of the CTH F & Lindsay Road Intersection as part of their 2019 safety analysis at a cost to the City of $5,000 to be paid out of the Engineering "Outside Engineering" account.

**ATTACHMENTS:**

Description

# AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is entered into between **Waukesha County** (Client) and **Traffic Analysis & Design, Inc.** (Engineer), based upon Client's intention to conduct a traffic study at the intersection of CTH L & Lindsay Road in Waukesha County, Wisconsin (the Project) and Client's requirement for certain engineering services in connection with the Project (the Services) which Engineer is prepared to provide.

1. Engineer shall provide the Services described in Attachment A, "Scope of Services", according to Attachment A, "Schedule".

2. Client shall pay Engineer in accordance with Attachment A, "Compensation". Invoices shall be due and payable upon receipt. Invoice amounts not paid within 30 days after receipt shall accrue interest at the rate of 1.5% per month (or the maximum rate permitted by law, if less), with payments applied first to accrued interest and then to unpaid principal.

3. The same degree of care, skill, and diligence shall be exercised in the performance of the Services as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances. No other warranty, express or implied, is included in this Agreement or in any drawing, specification, report, opinion, or other instrument of service, in any form or media, produced in connection with the Services.

4. Engineer shall not be liable to Client for any consequential damages resulting in any way from the performance of the Services. To the fullest extent permitted by law, Engineer's liability under this Agreement shall not exceed Engineer's total compensation actually received under this Agreement.

5. Engineer and Client waive all rights against each other for damages covered by property insurance during and after the completion of the Services.

6. Not withstanding anything to the contrary in any Attachments hereto, Engineer has no responsibility for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; or (b) the failure of any contractor, subcontractor, vendor, or other Project participant, not under contract to Engineer, to fulfill contractual responsibilities to Client or to comply with federal, state, or local laws, regulations, and codes.

7. Engineer does not guarantee that proposals, bids, or actual Project costs will not vary from Engineer's cost estimates or that actual schedules will not vary from Engineer's projected schedules.

8. This Agreement may be terminated upon written notice at Client's convenience or by either party in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. Engineer shall terminate performance of Services on a schedule acceptable to Client, and Client shall pay Engineer for all Services performed and reasonable termination expenses. Paragraphs 4 and 5 shall survive any termination or completion of this Agreement.

9. All documents prepared by Engineer pursuant to this Agreement are instruments of service in respect to the Project. Any use except for the specific purpose intended by this Agreement will be at the user's sole risk and without liability or legal exposure to Engineer. Engineer shall retain its ownership in its data bases, computer software, and other proprietary property. Intellectual property developed, utilized, or modified in the performance of the Services shall remain the property of Engineer.

10. The Services provided for in this Agreement are for the sole use and benefit of Client and Engineer. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Client and Engineer.

11. Any notice required by this Agreement shall be made in writing to the address specified below:

**Client**: Waukesha County
515 W Moreland Blvd • AC 220
Waukesha WI 53188
**Attn**: Carolynn Gellings, PE, Engineering Services Manager

**Engineer**: Traffic Analysis & Design, Inc.
N36 W7505 Buchanan Street
Cedarburg, WI 53012
**Attn**: John A. Bieberitz, P.E., PTOE

IN WITNESS WHEREOF, Client and Engineer have executed this Agreement, effective as of August 6, 2019.

**Waukesha County (Client)**

By:_____

Title: _____

Date: _____

**Traffic Analysis & Design, Inc. (Engineer)**

By: _____
John A. Bieberitz, P.E., PTOE

Date: 8/6/19

# ATTACHMENT A

## SCOPE OF SERVICES

Engineer will conduct a traffic study at the intersection of County Trunk Highway (CTH) F and Lindsay Road consisting of traffic counts, traffic operations analysis, traffic signal warrant analysis, crash analysis, and a memorandum documenting the findings and recommendations. Each element of the scope is outlined below.

### Task 1 – Data Collection

Engineer will collect traffic turning movement counts at the CTH F and Lindsay Road intersection on a typical weekday from 6 AM to 7 PM. The traffic turning movement counts will be conducted to WisDOT standards with cars, trucks, busses, bikes and pedestrians counted separately per movement in 15-minute intervals. Engineer will collect a photo log, intersection geometric data, and turn bay lengths. The Engineer will compile the traffic count data and geometric data for a base map for the traffic analysis.

### Task 2 – Traffic Operations Analysis

Engineer will conduct an intersection operational analysis for the weekday AM and PM peak hours for the CTH F and Lindsay Road intersection for the following scenarios:

- Existing (2019) conditions with two-way-stop-control
- Existing (2019) conditions with traffic signal

Engineer will make recommendations such as turn bay length extensions, additional turn lanes, channelization, traffic control modifications and other improvements required to provide LOS 'D' or better for all traffic movements.

Engineer will conduct a traffic signal warrant analysis for the existing conditions and compare that data to the traffic signal warrant thresholds in the Manual of Uniform Traffic Control Devices (MUTCD) and the WisDOT left turn conflict analysis to determine if a traffic signal is warranted. All traffic volume warrants will be evaluated except for the School Crossing Warrant.

### Task 3 – Crash Analysis

Engineer will plot the past five years (2014-2018) of crashes at the CTH F and Lindsay Road intersection. Engineer will review the crash patterns identified in the crash plots and identify potential safety improvement options, including changing the traffic control of the intersection from side-stop control to traffic signal control. Engineer will utilize the crash data to determine the

"Economic Loss" at the intersection due to crashes. Engineer will utilize the crash data, economic loss and potential recommended improvements to determine if the CTH F and Lindsay Road would meet the requirements for HSIP funding.

### Task 4 – Report

Engineer will prepare a technical memorandum summarizing the findings of the analysis and recommendations for the next steps.

## ADDITIONAL WORK

In-person meetings are not included in the scope of work and would require an amendment.

## SCHEDULE

Engineer will complete the traffic study within three weeks of authorization, or sooner if possible.

## COMPENSATION

Compensation for the services described above, CLIENT shall pay Engineer a lump sum fee of Four Thousand Nine Hundred and Eighty-Four Dollars ($4,984.00).

All services not cited in Attachment A, Scope of Services, will be conducted as additional services under an Amendment to this Agreement.

5. Discussion and Possible Action to Authorize the Well #5 Radium Filtration Treatment Design, Equipment Replacement, and Building Addition, and to Re-Program Water/Sewer Capital Plan Accordingly

   Mr. Weigel stated Well #5 has had radium type issues that were going to be addressed. He said radium levels vary from time to time and the City's well drifted back into compliance. Mr. Weigel reported it is now drifting out of compliance again. He recommended going through the design process to get a treatment plan in place before the orders are issued from the State again. Mr. Weigel stated $50,000 was placed in the 2019 budget, but he said he received a proposal for this preliminary design, design,and the bidding process in the amount of $215,000. He said he estimates the actual project would cost $2 million. He said he was looking for the Council's authorization to allow him to reprogram funds to move forward with the design and bid process. He assured the Council they would have the ability to either approve the actual project or turn it down.

   **A motion was made and seconded, (J. Kara, B. Dziwulski) to authorize the preliminary design study and design bidding services at the cost $215,000 and authorize the reprograming of funds.** Motion Passed: 5-For, 0-Against.

6. Discussion and Possible Action to Allow the Property Located at N32 W22198 Shady Lane (PWC 0912-053) to Connect to the Sanitary Sewer in Hill 'n Dale Circle South Via Easement Across an Adjacent Parcel

   Mr. Weigel stated Shady Lane and Shady Nook do not have sewer and water service. He said he received a request from the Zabel family to connect to the sewer. He said they own two lots, one on Shady Lane where their house is, and a vacant lot on the Hill N Dale Circle where the sewer could be accessed. Mr. Weigel stated there are several costs associated with the connection, some of which are the levied reserved capacity assessment and the Hill N Dale interceptor capacity assessment.

   **A motion was made and seconded, (B. Dziwulski, C. Brown) to authorize the City Attorney to draft a sewer connection agreement for the Zabels similar to the 1997 Brouwer agreement and authorize the Mayor and Clerk to execute the agreement contingent upon the approval of the final form of the agreement by the City Attorney and City Engineer.**
   Motion Passed: 5-For, 0-Against.

7. Discussion and Possible Action to Authorize and Pay for the Intersection Safety Study of Lindsay Road and CTH F (Redford Blvd.) as a Part of Their Overall Intersection Safety Study this Year

   Mr. Weigel stated a representative from the Victoria Station Home Owners Association contacted him asking him to revisit signals in this area. He said he referred him to his district Alderman and County Supervisor Swan. Mr. Weigel stated Supervisor Swan spoke to the County and said they could do the study in the next month or two for $5,000. He suggested the funds could either come out of the contingency fund or the outside engineering account.

   **A motion was made and seconded (J. Wamser, R. Grosch) to authorize the study to be paid for from the outside engineering account**. There was additional discussion.
   Motion Passed: 5-For, 0-Against.

8. Discussion and Possible Action Regarding **Ordinance 19-21** Rezoning the Property Located at N40 W27535 Glacier Road (PWC 0890-999-002) From Rs-2 Single-Family Residential District To Rs-3 Single-Family Residential District and the Property Bearing Tax Key No. PWC 0890-999-007

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 6.

**DATE:** March 15, 2021

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action Regarding the Intermunicipal Agreement for the Lindsay Road/Redford Boulevard (CTH F) Intersection Improvements [Wagner]

***BACKGROUND:***

Recall the City of Pewaukee approved working with Waukesha County to apply for a Highway Safety Improvement Program Grant for the Lindsay Road and Redford Boulevard (CTH F) intersection improvement project. The project did receive funding from the HSIP grant for 2023 construction of a Restricted Crossing U-Turn (RCUT) intersection.

With securing the grant, the County is seeking a Two Party Project Agreement for the project and its funding. Please see the attached agreement. Couple of items to note in this agreement. The City is funding all costs outside of the grant funding. The City will responsible for the operation and maintenance of the lighting required for the intersection. I've asked for clarification about pedestrian/bicycle crossings.

***FINANCIAL IMPACT:***

The 2021 Budget allocated $20,000 for this project.

***RECOMMENDED MOTION:***

Common Council approve the intermunicipal agreement contingent on the Director of Public Works and the City Attorney review and approval.

**ATTACHMENTS:**

Description

Two Party Agreement

**TWO-PARTY PROJECT AGREEMENT**
**Between**
**WAUKESHA COUNTY by the DEPARTMENT OF PUBLIC WORKS**
**And**
**THE CITY OF PEWAUKEE**

This Agreement is made and entered into between Waukesha County by the Department of Public Works (hereinafter called the DEPARTMENT) and the City of Pewaukee (hereinafter called the CITY) to designate the responsibilities for design, real estate acquisition, construction, and payment of certain costs associated with roadway safety improvements at the County Trunk Highway F (CTH F, also known as Redford Boulevard) and Lindsay Road intersection. Attachment 1 is a Conceptual Plan of the Intersection Proposed Improvements.

WHEREAS, the DEPARTMENT has obtained Highway Safety Improvement Program (HSIP) federal-funding from the Wisconsin Department of Transportation (WisDOT) to modify the existing CTH F/Lindsay Road full-turn intersection to a 'Restricted Crossing U-Turn Intersection' (RCUT) in the City of Pewaukee.

WHEREAS, the CITY has requested that the DEPARTMENT prioritize safety improvements at the CTH F and Lindsay Road intersection more quickly than other DEPARTMNENT projects.

WHEREAS, the CITY agrees to pay the actual costs associated with the local-share for completing the design, real estate acquisition and construction items listed in the cost estimate, attached hereto as Attachment 2, necessary to convert the CTH F/Lindsay Road intersection to a RCUT intersection.

The parties do mutually agree to the responsibilities related to the design, real estate acquisition and construction funding of said items as described below:

RESPONSIBILITIES:

The DEPARTMENT shall:

1. Complete design, real estate acquisition, contract plans, specifications and estimates for modifying the CTH F/Lindsay Road full-turn intersection to a RCUT intersection. Work directly with WisDOT staff as part of preparing construction bid documents.

2. Monitor progress of ongoing field inspection and contract administration performed by WisDOT during construction for HSIP-funded projects. WisDOT would publicly bid said roadway improvement in accordance with all federal and state laws.

3. Make available to the City, with reasonable notice, bidding documents, bid results, notice of award, and copies of all records recommendations of awards, reports, engineer findings, and WisDOT's correspondence regarding said roadway improvements.

4. Review WisDOT's accounts of construction activities, changes in work, construction costs, and any delays or additional work necessary to complete the project. Assess any incremental increases or decreases in quantities or costs.

5. Provide copies of WisDOT's possible work change directives, change orders, or other appropriate documents to the contractor, as contract or construction changes dictate, to expedite the progress of the construction work. Any document that would increase the CITY's costs shall be provided before execution by WisDOT and the DEPARTMENT, via email, to the CITY'S Representative for review, and the CITY'S comments thereon considered if received by the DEPARTMENT within two business days of the time it is emailed to the CITY'S Representative.

6. Furnish to the CITY a detailed breakdown of all actual construction costs including all change orders and work change directives upon completion of the project.

7. Invoice the CITY on a quarterly basis.

The CITY shall:

1. Pay the actual costs of items that are estimated in Attachment 2, beyond the federal funding amount of a HSIP-project to be sought by Waukesha County. Project costs estimated at time this Agreement is signed, are anticipated to include:

| | **Federal-funded share** | **County share** | **City share** | **TOTAL** |
|---|---|---|---|---|
| Design & WisDOT-design review | $135,720 | $ 0 | $ 15,080 | $ 150,800 |
| Construction | 738,068 | 0 | 83,008 | 821,076 |
| Real estate | 0 | 0 | $34,200 | 34,200 |
| **TOTAL COST DISTRIBUTION** | **$873,788** | **$ 0** | **$132,288** | **$1,006,076** |

Any additional costs that may be incurred in association with these items shall be paid for by the CITY. The CITY shall pay the total ***actual costs*** for these items when they are invoiced by the DEPARTMENT.

2. Pay the entire actual design/construction/real estate acquisition costs for items which are the responsibility of the CITY within 30 days of receipt of an invoice from the DEPARTMENT.

3. Accept all future cost responsibilities for operating intersection area highway lighting located outside the CTH F pavement, upon completion of project construction.

4. Quit Claim to Waukesha County at no additional costs the adjacent City-owned lands necessary for project construction.

5. Designate a representative to act for the CITY under this Agreement. The representative shall be:

    Magdelene Wagner, P.E.
    Director of Public Works/City Engineer
    City of Pewaukee
    W240 N3065 Pewaukee Road
    Pewaukee, WI 53072
    262-691-0804 Office

OTHER TERMS

1. Assignment: The parties agree that there shall be no assignment or transfer of this Agreement nor of any interests, rights or responsibilities contained herein without a written amendment agreed to by both parties.
2. Amendment: The parties, by mutual consent, may amend this Agreement in writing at any time.
3. Severability: If any provision of this Agreement is held invalid under any applicable law, such invalidity shall not affect any other provision of this Agreement that can be given effect without the invalid provision and, to this end, the provisions hereof are severable.
4. Construction is currently anticipated to occur during 2023 as a HSIP-funded project by WisDOT, subject to the terms of this Agreement.
5. If this HSIP-funded project is cancelled by WisDOT, then this two party agreement becomes void between the DEPARTMENT and CITY.

Attachment 1: Conceptual Plan of Intersection Proposed Improvements, CTH F at Lindsay Rd
Attachment 2: Concept Layout Plan Cost Estimate (August 2020)

APPROVAL

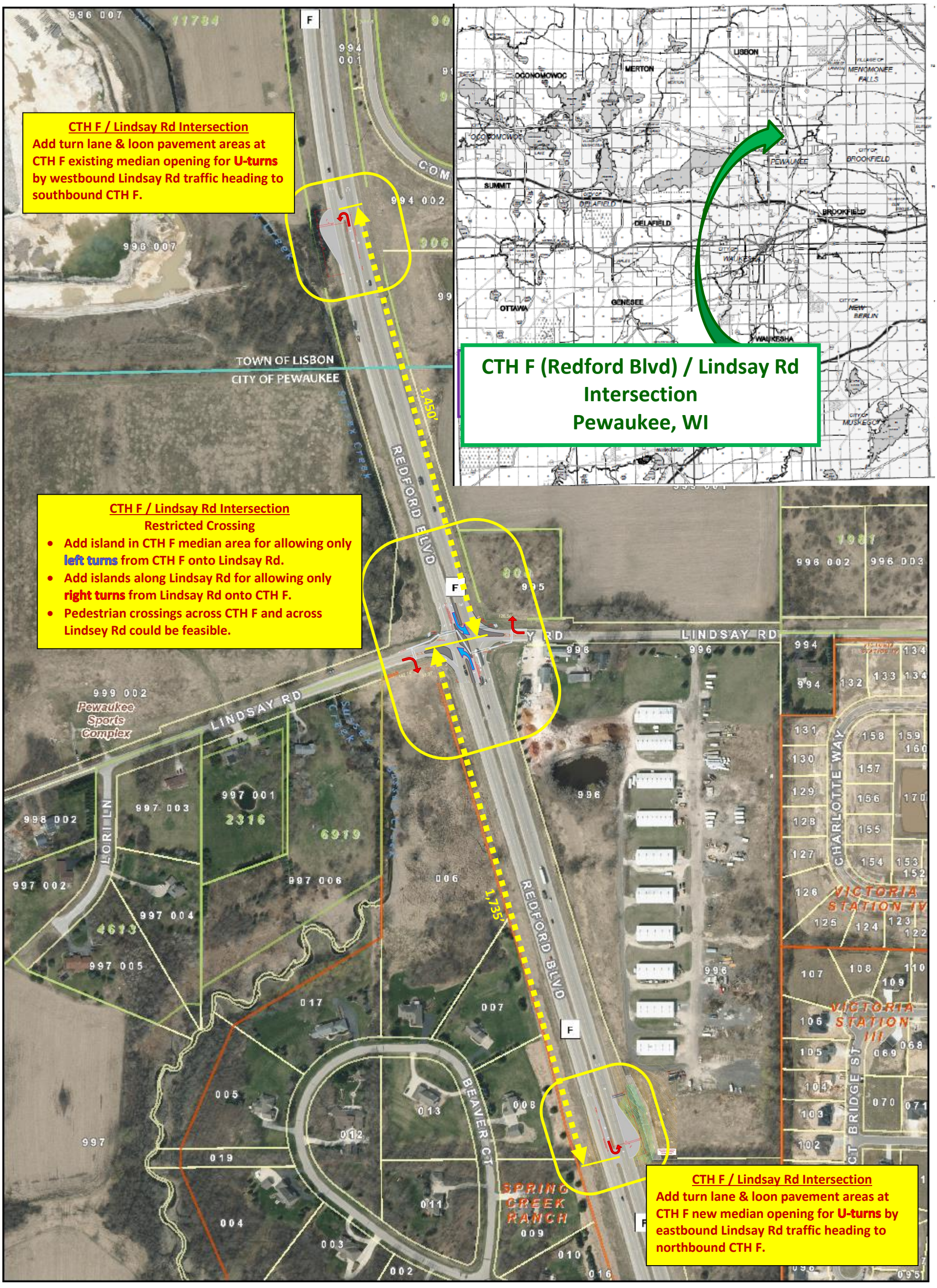
This Agreement will be effective on the date of the DEPARTMENT'S signature.

| CITY: | DEPARTMENT: |
|---|---|
| City of Pewaukee | Waukesha County |
| By: _____ | By: _____ |
| | Allison Bussler |
| Title: _____ | Title: Director of Public Works |
| Date: _____ | Date: _____ |

| Address for CITY: | Address for DEPARTMENT: |
|---|---|
| City of Pewaukee<br>W240 N3065 Pewaukee Road<br>Pewaukee, WI 53072 | Waukesha County Department of<br>Public Works<br>515 W. Moreland Blvd., Room AC 210<br>Waukesha, WI 53188 |

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd) - Lindsay Rd: Restricted Crossing U-Turn (RCUT) Intersection




0 300 Feet

Printed: 7/8/2020

Exhibit 6A
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd) - Lindsay Rd: *Restricted Crossing U-Turn (RCUT) Intersection*

Offset right turn lane alignment with 2'-marked slot for extending sight distance from Lindsay Rd.

10'

2'

Reconstruct & extend southbound CTH F:
1. left turn lane (185') by 90' to 275'
2. left turn taper (150') by 10' to 160'

Replace existing inlet

Two existing 30"-RCCP

Extend two 30"-RCCP

Add highway light

R = 30'

R = 5'

2'

~ 70°

Align Lindsay Rd channelized right turn lane for view of oncoming CTH F traffic.

60'-radius curb & gutter

100' taper

REDFORD BLVD

LINDSAY RD

ONLY

F

NO PEDESTRIAN OR BICYCLE CROSSING R9-3a

~ 67°

Reconstruct & extend northbound CTH F:
1. left turn lane (200') by 75' to 275'
2. left turn taper (150') by 10' to 160'

Offset right turn lane alignment with 2'-marked slot for extending sight distance from Lindsay Rd.

SPRING CREEK RANCH

142.74'

37.27'

126.56'

0872 006

0869 995 808

0869 996

0869 999 002

Sussex Creek

**Plan revisions per WisDOT review comments:**

1. Adjust configuration of Lindsay Rd channelized right turn lane islands for drivers' view of oncoming CTH F traffic.
2. Offset CTH F right turn lanes to Lindsay Rd.
3. Extend length and taper of CTH F existing non-slotted left turn lanes to conform with FDM guidance.

0 30.00 Feet

Printed: **01/12/2021**



Exhibit 3B

**Intersection Proposed Improvements**

CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY

LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), north of Lindsay Rd: *Restricted Crossing U-Turn (RCUT)*




0 30.00 Feet

Printed: 7/8/2020

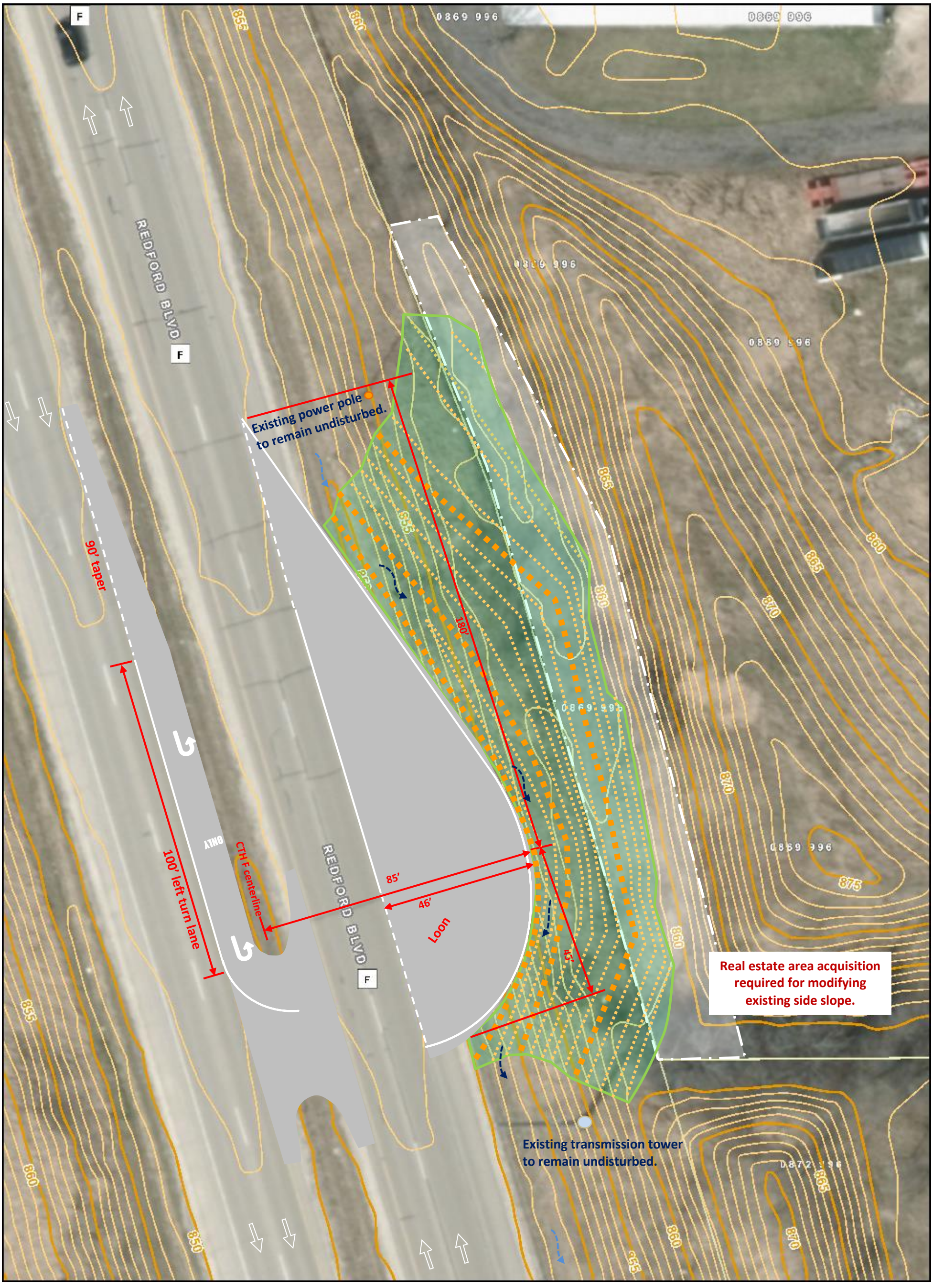
Exhibit 6C

**Intersection Proposed Improvements**

CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), south of Lindsay Rd: Restricted Crossing U-turn (RCUT)




0 30.00 Feet

Printed: 7/17/2020

Exhibit 6D
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

# CONCEPT LAYOUT PLAN COST ESTIMATE (August 2020)

## CTH F (Redford Blvd) / Lindsay Rd Intersection

~1400-feet / ~350 feet

**Waukesha County Project**

| ITEM NO. | Bid Item | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT COST | TOTAL COST | | Inflated cost 3.5%/year to Yr 2024 |
|---|---|---|---|---|---|---|---|---|
| 1 | 201.0105 & 201.0205 | CLEARING & GRUBBING | STA | 4 | $800.00 | $ 3,200 | 240'N + 150'S | |
| 2 | 204.0100 | REMOVE PAVEMENT | SY | 2,300 | $5.00 | $ 11,500 | [(30'x70' + 225'x10' + 240'x2')North + (30'x80' + (215'x13' + 140'x6.5)x2 + (80'x45')x2/3)Int + (30'x70' + 225'x10' + 190'x2')South]/ 9sf = (4830+9810+4730)/9 = 2152 SY | |
| 3 | 204.0150 | REMOVE CURB & GUTTER | LF | 760 | $4 | $ 3,040 | [(85' + 60')West + (225' + 225')Median + (110' + 55') East] Int = 760' | |
| 4 | 205.0100 | EXCAVATION COMMON - BORROW | CY | 8,800 | $17.00 | $ 149,600 | [(5802sf + 240'x9')x 2' ave fill NORTH + ((120'x80' X1/3)SW + (375'+90'+375')x30 MED + (130'x120' x1/3)NE )x 3 ' ave fill) Int + ((240'x80'x 6' ave cut) + (190'x9'x 2' ave fill)) SOUTH ]/ 27 cf = (15924 NORTH + 100,800 INT + 118,620 SOUTH)/27 = 8716 | |
| 5 | 305.0110 | BASE AGGREGATE DENSE 1-1/4" (10"-section) | TON | 2,200 | $18.00 | $ 39,600 | [ [(5802sf+240'x9')NORTH + [(120'x80' x1/3)SW + ((300'+90'+300')x14' MED + (150'x125' x1/3)NE )INT + (5802sf+190'x9')SOUTH] sf x 10"/12" hwy ) / 27 cf] x 2.0 T/cy = = (7,962 NORTH + 19,110 MED + 7,512 SOUTH) x 10"/12" hwy )/27] x 2.0 T/cy = 2135 | |
| 6 | 455.0115 | ASPHALTIC MATERIAL PG64-22 | TON | 65 | $5.00 | $ 325 | 5.5% of Item 460.1100 | |
| 7 | 460.1100 | HMA PAVEMENT TYPE E-3 (5.5"-section) | TON | 1,180 | $65.00 | $ 76,700 | [ [(7,962 NORTH + 19,110 MED + 7,512 SOUTH)sf x 5.5"/12" hwy ) ] x 146.7 lb/cf) / (2000 lb/T) = 1163 | |
| 8 | 465.0305 | ASPHALTIC SURFACE SAFETY ISLANDS (Rt turns, Median-Lt turns) | TON | 220 | $75.00 | $ 16,500 | [ [1500sf + (1800sf+2200sf+1800sf) + 1300sf] x (4"/12")]INT / 27 cf] x 2.0 T/cy = 212 T | |
| 9 | 465.0315 | ASPHALTIC FLUMES | SY | 10 | $60.00 | $ 600 | 85sf/9 SW = 9.5 | |
| 10 | 520.1030 | APRON ENDWALLS , 30-IN | EA | 4 | $1,100.00 | $ 4,400 | INT: 2 NW + 2 NE | |
| 11 | 602.0410 | CONCRETE SIDEWALK - 5" (6'-wide sidwalk) | SF | 2,300 | $6.50 | $ 14,950 | [(850sf + 600sf + 850sf)INT = 2300 sf | |
| 12 | 608.0430 | STORM SEWER PIPE REINFORCED CONCRETE CLASS IV, 30-IN | LF | 140 | $120.00 | $ 16,800 | INT: (25' + 25')NW + (40' + 50') NE= 140' | |
| 13 | | MANHOLE, 5-FT DIAMETER & COVER | EA | 1 | $3,300.00 | $ 3,300 | | |
| 14 | | INLET 2X3-FT & COVER | EA | 1 | $2,050.00 | $ 2,050 | | |
| 15 | 601.0411 | CONCRETE CURB & GUTTER 30-INCH TYPE D | LF | 1,910 | $26.00 | $ 49,660 | [(250' + 125')West + (225'x2 + 280' + 225'x2)Median + (235'+120') East] Int = 1910' | |
| 16 | 619.0000 | MOBILIZATION | LS | 1 | $35,000.00 | $ 35,000 | | |
| 17 | 625.0500 | SALVAGED TOPSOIL | SY | 1,850 | $3.00 | $ 5,550 | [(250'x10' + 200'x5')North + (150'x10' + 150'x10')x2 + (150'x10'))Int + (225'x20' + 200'x5')South]/ 9 sf = 1833 SY | |
| 18 | 628.1504 | SILT FENCE | LF | 1,500 | $2.50 | $ 3,750 | (325'+50')North + (100'+240'+100'+220'+20'+20')]Int + (350'+50')South = 1475' LF | |
| 19 | 628.2006 | EROSION MAT URBAN CLASS I TYPE A | SY | 2,600 | $2 | $ 5,200 | [ (300' x 10'wide x 2 SBsides)NORTH + ((150'taper x 10'wide) x 2-LT's + (200' x 10'wide x 4corners)INT + (300' x 10'wide x 2 NBsides)SOUTH ] / 9 sf = 2556 SY | |
| 20 | | REMOVE, RE-INSTALl, ADD SIGNS | LS | 1 | $6,000.00 | $ 6,000 | | |
| 21 | | TRAFFIC CONTROL (Shift CTH F lanes, close Lindsey Rd) | LS | 1 | $20,000.00 | $ 20,000 | | |
| 22 | 642.5201 | FIELD OFFICE C | LS | 1 | $9,000.00 | $ 9,000 | | |
| 23 | 646.0106 | PAVEMENT MARKINGS EPOXY 4" | LF | 3,120 | $1.50 | $ 4,680 | (505'+280')NORTH + ((225'x2+150')x2+85'+85'+90'+90')INT + (505'+280')SOUTH = 3120 | |
| 24 | 646.7420 | PAVEMENT MARKINGS EPOXY 6" (CROSSWALK) | LF | 330 | $8.00 | $ 2,640 | (27'+50'+55'+29')x2 INT = 322' | |
| 25 | | PAVEMENT MARKINGS WORDS & ARROWS | EA | 16 | $300.00 | $ 4,800 | 3 NORTH + (2+3+3+2)INT + 3 SOUTH = 16 | |
| 26 | 647.0726 | PAVEMENT MARKINGS 12" DIAGONALS | LF | 50 | $9.50 | $ 475 | (5'+8'+10'+10'+8'+5')INT = 46 | |
| 27 | | HYDROSEEDING | SY | 1,700 | $2.00 | $ 3,400 | [(250'x10' + 200'x5')North + (150'x10' + (150'x10')x2 + (150'x10'))Int + (225'x20' + 200'x5')South]/ 9 sf = 1667 SY | |
| 28 | | REMOVE EXISTING HIGHWAY LIGHTING | EA | 1 | $700 | $ 700 | | |
| 29 | | NEW HIGHWAY LIGHTING | EA | 2 | $3,000.00 | $ 6,000 | | |
| 30 | 690.0150 | SAWING ASPHALT | LF | 3,260 | $2.50 | $ 8,150 | (225'+10'+10'+90'+300'+6'+6'+6'+6')North + ((21'+60'+180'+10') + ((225'+150'+225')x2 + 100'+100' + 6'+6'+6'+6') + (21'+90'+180'+10'))Int + (225'+10'+10'+90'+260'+6'+6'+6'+6')South = 3258' LF | |
| | | | | | | | | |
| | | | | | SUBTOTAL | $ 507,570 | | |

| | | | |
|---|---|---|---|
| ABOVE MAJOR ITEMS REPRESENT **85%** OF COSTS OF SIMILAR PROJECTS | 0.85 | | |
| TOTAL CONSTRUCTION COST FOR ALL BID ITEMS | | $ 597,141 | |
| 15% Allowance for Construction Engineering & Contingencies | | $ 89,571 | |
| **TOTAL CONSTRUCTION** | | | **$686,712** $772,900 |

| REAL ESTATE ACQUISITION / EASEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| ITEM | DESCRIPTION | | | AREA (SF) | | TOTAL COST |
| 1 | SE | Parcel 86995996 | FEE & TLE | 6.25 | | $15,000 |
| | | | | | | |
| | | | | | Acquisition | $6,000 |
| | | | | | Land/TLE | $6,000 |
| | | | | | Misc/incidental | $3,000 |
| | | | | | Title Searches (1 parcel) | $400 |
| | | | | | Utilities & Miscellaneous | $0 |

| | | |
|---|---|---|
| **TOTAL REAL ESTATE** | **$30,400** | $34,215 |
| **DESIGN CONSULTANT** (**11.0%** of total construction) **+ DESIGN REVIEW** (**8.5%** of total construction) | **$133,909** | $150,716 |
| **GRAND TOTAL** | **$851,020** | **$957,831** |

Exhibit 7
**Cost Estimate**
CTH F (Redford Blvd) / Lindssay Rd Intersection

issue because the homes are built in stages. She said the Parade of Homes are hurrying to complete the homes so more traffic is in the area at this time.

5. Discussion and Possible Action to Adopt **Resolution 21-03-08** Government Responsibility Resolution for the Department of Natural Resources (DNR) Storm Water Planning Grant Application

Ms. Wagner stated every two years the DNR offers planning grants for storm water and this year they would like to move forward with an application. She said this has be a long-standing project and the request for proposal is expected to go out this year. The grant would cover the water quality aspect of the project and would be available in 2022. Ms. Wagner stated the resolution would grant her the authorization to sign the applications and sign the paperwork for reimbursements.

**A motion was made and seconded (J. Kara, R. Grosch) to approve the government responsibility resolution, 21-03-08, for the Department of Natural Resources.** Motion Passed: 6-For, 0-Against.

6. Discussion and Possible Action Regarding the Intermunicipal Agreement for the Lindsay Road / Redford Boulevard (CTH F) Intersection Improvements

Ms. Wagner stated she received this agreement from Waukesha County for the restricted crossing "U" turn safety improvements for the intersection at Redford Boulevard and Lindsay Road. She said the County secured a grant and would be responsible for 90 percent of the project costs and the City would be responsible for the other 10 percent. Ms. Wagner stated this agreement lays out the costs, as well as who the project lead is and who will do the review. Ms. Wagner made note that there are proposed LED lights at the intersection and the City would be responsible for the long-term maintenance of them. She said the agreement was reviewed by the City Attorney and herself and she had a few questions related to the document. She said there is land acquisition needed, as well as some grading work, but the County was unsure of their needs at this time. Ms. Wagner stated she'd rather grant them an easement, verses giving them the land. She said flood plain changes are needed in that northeast quadrant and the City may have use for that land. The project would not take place until 2023 and as much as the Council would like to see the project expedited, she said the County felt that would not be possible due to funding issues. Ms. Wagner stated the plan doesn't show pedestrian or bicycle crossing and the County would not consider building the facility because there is nothing currently there and there is high-volume on the roadway. It is not a safe crossing area. Ms. Wagner stated if the Council wants it, they need to put in the walkway or trail prior to the project. Ms. Wagner wanted a provision added to the agreement that the City can reject all bids if they come in too high. Ms. Wagner recommended approving the agreement contingent on final review of the agreement by staff and the City Attorney.

Mr. Bergman asked if a crossing was proposed in the City's bike and pedestrian plan. Ms. Wagner confirmed that it was. She said there are trails proposed down Lindsay Road, Swan Road and Duplainville Road that would connect to Balmer Park and the Sports Complex.

Mr. Bergman thought if the City had a plan for future development, the County would have to build it to accommodate for that future improvement. Ms. Wagner stated that was correct if they were reconstructing the road. However, this is just an intersection improvement funded by a safety grant.

Mr. Grosch stated he thought the County had a facility for crossing when they originally proposed the improvements to the City. Ms. Wagner said they had a provision showing how it would look, but it was removed.

Mr. Kara stated he was disappointed that this project won't be completed until 2023. This plan will make it useless for bikes and pedestrians. Ms. Wagner stated it was her understanding that this would be a raised intersection. Ms. Wagner stated they would have to "snake" around to cross the intersection to avoid the curb. Mr. Kara asked if the plan created a more dangerous situation for bicycles.

Ms. Brown stated this intersection was already dangerous. She said this improvement came to the Council because it was dangerous for cars.

Mr. Dziwulski voiced his displeasure that the County took out the crossing. He felt it was too dangerous.

Mr. Grosch stated some provision should be made in this area since the City has a plan for trails in the area.

Ms. Wagner read the following comment from the County: "If the City feels strongly regarding the crossing, we would need to meet and not only discuss the impacts and safety of the crossing, but the City's improvements to connect walks and overall." Ms. Wagner continued to say that the County feels this is a minor inconvenience for bicyclists for a major safety gain.

Mr. Bergman agreed with Mr. Kara's safety concerns and thought it should be brought back to Waukesha County for reconsideration to make it safe for bicyclist and pedestrians as well.

Ms. Wagner was directed to go back to the County to voice the City's concerns.

Ms. Wagner stated the County is going to ask when the trails are going in on Lindsay Road to justify the pedestrian crossing. She said the project could be added to the 2022 budget.

Mayor Bierce asked when Duplainville Road and Lindsay Road were projected to be done. Ms. Wagner stated Duplainville Road is proposed for 2022. She said Lindsay Road has been pushed off because they are waiting for utilities to come to that area. She estimated sometime within in the next five years.

Ms. Brown stated she was concerned that this would tie future Councils. She said no costs were given and she didn't agree with this.

Attorney Riffle stated we were not tying future Council hands because no contract is being signed.

Mr. Klein concurred with Attorney Riffle.

Ms. Wagner stated she would come back to the Council requesting a budget amendment for engineering fees.

Mr. Grosch asked if it would be an on-road or off-road plan. Ms. Wagner stated she believes the recommendation is for an on-road trail but feels there are some pretty significant grading issues to do so.

7. Discussion and Possible Action Regarding **Ordinance 21-01** Amending Chapter 5 - Traffic to Add Broken Hill Boulevard, Century Farm Road, and Highfield Road to Section 5.05(3)(b)

Ms. Wagner stated this is in response to the complaints received related to the Swan View Farms construction traffic driving through the Broken Hill subdivision. She indicated even though the developer's agreement prohibits large trucks from using these streets, the vendors are still cutting

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 13.

**DATE:** April 5, 2021

**DEPARTMENT:** PW - Engineering

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action to Re-Allocate Funding for the Design of the Lindsay Road Trail [Wagner]

***BACKGROUND:***

Recall at the Common Council meeting on March 15, 2021, the Common Council requested Staff to review installing a trail in Lindsay Road from Duplainville Road to the Pewaukee Sports Complex as part of the Duplainville Road Reconstruction and Trail project. This was in reference to a pedestrian crossing within the intersection improvements of Lindsay and Redford.

The Bike & Pedestrian Committee met and supported an off road trail along with section of Lindsay Road at their meeting on March 24, 2021.

Strand & Associates prepared a task order which estimated the cost for survey and design to add this section of trail to the Duplainville Road project they are currently working on.

***FINANCIAL IMPACT:***

As this project was not considered as part of the 2021 budget and in order to remain budget neutral in the Capital Fund for Bike & Pedestrian, we request $50,000 be re-allocated from the Fieldhack Trail project. The 2021 budget allocated $150,000 for design of the Fieldhack Trail Connection in which Staff has not spent any of this allocation to date.

***RECOMMENDED MOTION:***

Common Council re-allocate $50,000 of the 2021 budget from the Fieldhack Trail project to the Lindsay Road Trail project for design in 2021.

Roundy's Industrial Park Including Roundy Drive, Roundy Circle, and Paul Road Rehabilitation and Water Main Relay Project

Ms. Wagner noted Resolution 12-04-16 is a comfort resolution borrowing to repay funds when they come in. Ms. Wagner stated when going through assessments for the property there was no preliminary resolution for the project. Resolution 21-04-15 authorizes the City to move forward with the project.

**A motion was made and seconded (J. Wamser, B. Dziwulski) to approve Resolution 21-04-15 and Resolution 21-04-16.** Motion Passed: 5-For, 0-Against.

13. Discussion and Possible Action to Re-Allocate Funding for the Design of the Lindsay Road Trail

Ms. Wagner stated this item comes out of the discussion regarding the agreement with Waukesha County for the intersection improvement, and whether the City would move forward with the Lindsay Road trail to entice discussion with the County to put a pedestrian crossing in the intersection improvement. Ms. Wagner noted this would authorize the transfer of funds from the Fieldhack Trail project to the Lindsay Road project for $50,000 to start preliminary design and engineering on the trail.

Ms. Wagner stated the Bike and Pedestrian Committee met and supported an off-road trail from Duplainville Road to the park. West of the park would be an on-road trail system.

Discussion took place regarding reallocating the funds and the impact on the Fieldhack project.

Mr. Grosch asked if the consultant would make other recommendations for crossing or a speed limit reduction. Mr. Dziwulski stated the County would not support a reduction in the speed limit.

Ms. Brown stated she thought this was a dangerous intersection and it will be a waste of money. She felt it was a safety issue and felt it makes the City liable. Further discussion took place regarding the safety concerns of pedestrians and bikes crossing.

**A motion was made and seconded (B. Dziwulski, R. Grosch) to reallocate $50,000.00 of the 2021 budget from the Fieldhack Trail project to the Lindsay Road Trail project for design in 2021.** Motion Passed: 4-For, 1-Against. (C. Brown)

14. Discussion and Possible Action to Waive the Second Reading and Approve **Ordinance 21-02** to Repeal and Recreate Section 5.05(3)(a) Pertaining to Regulating Heavy Traffic

Ms. Wagner stated the spring weight limits have a condition stating you have to take the shortest route possible to get to a destination. It is not in the current ordinance and Ms. Wagner would like to amend the current ordinance to include it. Ms. Wagner felt adding this language would make it clearer and more enforceable.

Dan Teske (W244 N4512 Swan Road) stated he is confused and frustrated. A year ago when construction started in the Swan Farms subdivision, he was told trucks would go south out of the subdivision. He says a great deal of construction vehicles are turning the wrong way out of the construction site. He has contacted the Sheriff's Department several times. If this is not going to be reinforced, he will stop calling and wasting the Deputy's time. He would like to know what he needs to do or what the City is going to do.

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 12.

**DATE:** June 7, 2021

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action Regarding the Intermunicipal Agreement for the Lindsay Road/Redford Boulevard (CTH F) Intersection Improvements [Wagner]

***BACKGROUND:***

Recall the City of Pewaukee approved working with Waukesha County to apply for a Highway Safety Improvement Program Grant for the Lindsay Road and Redford Boulevard (CTH F) intersection improvement project. The project did receive funding from the HSIP grant for 2023 construction of a Restricted Crossing U-Turn (RCUT) intersection.

This was previously discussed on March 15, 2021. See attached minutes.

With securing the grant, the County is seeking a Two Party Project Agreement for the project and its funding. Please see the attached revised agreement. Couple of items to note in this agreement. The City is funding all costs outside of the grant funding. The City will responsible for the operation and maintenance of the lighting required for the intersection and any enhancements (other than standard signage and pavement markings) for the pedestrian crossing. The City will also have jurisdiction of the crossing.

***FINANCIAL IMPACT:***

The 2021 Budget allocated $20,000 for this project

***RECOMMENDED MOTION:***

Common Council approve the intermunicipal agreement contingent on the Director of Public Works and the City Attorney review and approval.

**ATTACHMENTS:**

Description

20210315 CC minutes

Letter to County for Adding Pedestrian Crossing

Revised Two Party Agreement

issue because the homes are built in stages. She said the Parade of Homes are hurrying to complete the homes so more traffic is in the area at this time.

5. Discussion and Possible Action to Adopt **Resolution 21-03-08** Government Responsibility Resolution for the Department of Natural Resources (DNR) Storm Water Planning Grant Application

Ms. Wagner stated every two years the DNR offers planning grants for storm water and this year they would like to move forward with an application. She said this has be a long-standing project and the request for proposal is expected to go out this year. The grant would cover the water quality aspect of the project and would be available in 2022. Ms. Wagner stated the resolution would grant her the authorization to sign the applications and sign the paperwork for reimbursements.

**A motion was made and seconded (J. Kara, R. Grosch) to approve the government responsibility resolution, 21-03-08, for the Department of Natural Resources.** Motion Passed: 6-For, 0-Against.

6. Discussion and Possible Action Regarding the Intermunicipal Agreement for the Lindsay Road / Redford Boulevard (CTH F) Intersection Improvements

Ms. Wagner stated she received this agreement from Waukesha County for the restricted crossing "U" turn safety improvements for the intersection at Redford Boulevard and Lindsay Road. She said the County secured a grant and would be responsible for 90 percent of the project costs and the City would be responsible for the other 10 percent. Ms. Wagner stated this agreement lays out the costs, as well as who the project lead is and who will do the review. Ms. Wagner made note that there are proposed LED lights at the intersection and the City would be responsible for the long-term maintenance of them. She said the agreement was reviewed by the City Attorney and herself and she had a few questions related to the document. She said there is land acquisition needed, as well as some grading work, but the County was unsure of their needs at this time. Ms. Wagner stated she'd rather grant them an easement, verses giving them the land. She said flood plain changes are needed in that northeast quadrant and the City may have use for that land. The project would not take place until 2023 and as much as the Council would like to see the project expedited, she said the County felt that would not be possible due to funding issues. Ms. Wagner stated the plan doesn't show pedestrian or bicycle crossing and the County would not consider building the facility because there is nothing currently there and there is high-volume on the roadway. It is not a safe crossing area. Ms. Wagner stated if the Council wants it, they need to put in the walkway or trail prior to the project. Ms. Wagner wanted a provision added to the agreement that the City can reject all bids if they come in too high. Ms. Wagner recommended approving the agreement contingent on final review of the agreement by staff and the City Attorney.

Mr. Bergman asked if a crossing was proposed in the City's bike and pedestrian plan. Ms. Wagner confirmed that it was. She said there are trails proposed down Lindsay Road, Swan Road and Duplainville Road that would connect to Balmer Park and the Sports Complex.

Mr. Bergman thought if the City had a plan for future development, the County would have to build it to accommodate for that future improvement. Ms. Wagner stated that was correct if they were reconstructing the road. However, this is just an intersection improvement funded by a safety grant.

Mr. Grosch stated he thought the County had a facility for crossing when they originally proposed the improvements to the City. Ms. Wagner said they had a provision showing how it would look, but it was removed.

Mr. Kara stated he was disappointed that this project won't be completed until 2023. This plan will make it useless for bikes and pedestrians. Ms. Wagner stated it was her understanding that this would be a raised intersection. Ms. Wagner stated they would have to "snake" around to cross the intersection to avoid the curb. Mr. Kara asked if the plan created a more dangerous situation for bicycles.

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Attorney Riffle stated we were not tying future Council hands because no contract is being signed.

Mr. Klein concurred with Attorney Riffle.

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7. Discussion and Possible Action Regarding **Ordinance 21-01** Amending Chapter 5 - Traffic to Add Broken Hill Boulevard, Century Farm Road, and Highfield Road to Section 5.05(3)(b)

Ms. Wagner stated this is in response to the complaints received related to the Swan View Farms construction traffic driving through the Broken Hill subdivision. She indicated even though the developer's agreement prohibits large trucks from using these streets, the vendors are still cutting

**Department of Public Works**
**Engineering Division**
W240N3065 Pewaukee Road • Pewaukee, WI 53072
Phone: (262) 691-0804 • Fax: (262) 691-5729
Email: publicworks@pewaukee.wi.us

May 17, 2021

Allison Bussler
Public Works Director
Waukesha County Department of Public Works
515 West Moreland Boulevard, AC 220
Waukesha, WI 53188

Dear Ms. Bussler:

The City of Pewaukee (City) appreciates all your efforts to address the safety concerns of the City residents at the intersection of Redford Boulevard (CTH F) and Lindsay Road intersection. We were grateful to see the Highway Safety Improvement Program (HSIP) committee agreed with our concerns and approved the grant.

Upon receipt of the Inter Municipal Agreement from the County to support this project, we were surprised to see the pedestrian crossing that was discussed and presented prior to and shown as part of the HSIP application was eliminated.

The City has committed and is currently designing a multi-purpose trail along Lindsay Road from Duplainville Road to the Pewaukee Sports Complex, and along Duplainville Road from Weyer Road south to Green Road (see the attached map with its proposed location). The construction of the trails connect two of our City parks, Wagner Park and Pewaukee Sports Complex, as well as connecting numerous subdivisions to the parks. The City anticipates the construction of this trail as part of the Duplainville Road reconstruction project in 2022.

City and County staff discussed having this crossing at an existing signalized intersection. Unfortunately, this would not be a realistic alternative. The closest signalized intersection is Lisbon Road (CTH K), approximately 3,550 feet north, however this intersection is outside of the City's jurisdiction in the Town of Lisbon, and would require additional trail installed along CTH K and Duplainville Road. In addition, traffic along CTH K is uncontrolled at Duplainville Road, has a large volume of traffic, a large volume of truck traffic, and often backs up due to the railroad crossing yielding another dangerous intersection for pedestrians. The next closest controlled intersection is Capital Drive (STH 190) and CTH F, approximately 7,100 feet south, which is less than ideal due to the current configuration of off ramps from Capital Drive to CTH F and the substantial grade difference between STH 190 and CTH F. A trail would need to be installed along CTH F or along STH 190, STH 164, Swan Road, and Lindsay Road to the park - a substantially longer connection.

The Pewaukee Sports Complex is planned to have walking trails within the park. In addition, an inclusive playground/splash pad is planned for this park.


Magdelene Wagner, P.E., Director of Public Works

The City is respectively requesting the pedestrian crossing be added to the intersection improvement project. If you need additional information or would like to discuss this further, please feel free to contact our office at (262) 691-0770.

Sincerely,

Steven Bierce
Mayor

Sincerely,

Magdelene Wagner, P.E.
Director of Public Works/City Engineer

Cc: Scott Klein, City Administrator
Karen Braun, Engineering Manager, Waukesha County

LAND INFORMATION SYSTEMS DIVISION

# Waukesha County GIS Map




0 1,000.00 Feet

The information and depictions herein are for informational purposes and Waukesha County specifically disclaims accuracy in this reproduction and specifically admonishes and advises that if specific and precise accuracy is required, the same should be determined by procurement of certified maps, surveys, plats, Flood Insurance Studies, or orther official means. Waukesha County will not be responsible for any damages which result from third party use of the information and depictions herein, or for use which ignores this warning.

**Notes:**

- Trail under design - Construction 2022
- Future Trails
- Current on road Trail

Printed: 5/17/2021

**TWO-PARTY PROJECT AGREEMENT**
**Between**
**WAUKESHA COUNTY by the DEPARTMENT OF PUBLIC WORKS**
**And**
**THE CITY OF PEWAUKEE**

This Agreement is made and entered into between Waukesha County by the Department of Public Works (hereinafter called the DEPARTMENT) and the City of Pewaukee (hereinafter called the CITY) to designate the responsibilities for design, real estate acquisition, construction, and payment of certain costs associated with roadway safety improvements at the County Trunk Highway F (CTH F, also known as Redford Boulevard) and Lindsay Road intersection. Attachment 1 is a Conceptual Plan of the Intersection Proposed Improvements.

WHEREAS, the DEPARTMENT has obtained Highway Safety Improvement Program (HSIP) federal-funding from the Wisconsin Department of Transportation (WisDOT) to modify the existing CTH F/Lindsay Road full-turn intersection to a 'Restricted Crossing U-Turn Intersection' (RCUT) in the City of Pewaukee.

WHEREAS, the CITY has requested that the DEPARTMENT prioritize safety improvements at the CTH F and Lindsay Road intersection more quickly than other DEPARTMNENT projects.

WHEREAS, the CITY agrees to pay the actual costs associated with the local-share for completing the design, real estate acquisition and construction items listed in the cost estimate, attached hereto as Attachment 2, necessary to convert the CTH F/Lindsay Road intersection to a RCUT intersection.

The parties do mutually agree to the responsibilities related to the design, real estate acquisition and construction funding of said items as described below:

RESPONSIBILITIES:

The DEPARTMENT shall:

1. Complete design, real estate acquisition, contract plans, specifications and estimates for modifying the CTH F/Lindsay Road full-turn intersection to a RCUT intersection. Work directly with WisDOT staff as part of preparing construction bid documents.

2. At the request of the CITY the DEPARTMENT will include a pedestrian crossing at the intersection as shown in Attachment 1. Standard pedestrian signage and pavement markings will be included a part of this agreement. If the CITY requests specialized pedestrian signage, crossing enhancements and lighting, a separate agreement will be required.

3. Monitor progress of ongoing field inspection and contract administration performed by WisDOT during construction for HSIP-funded projects. WisDOT would publicly bid said roadway improvement in accordance with all federal and state laws.

4. Make available to the City, with reasonable notice, bidding documents, bid results, notice of award, and copies of all records recommendations of awards, reports, engineer findings, and WisDOT's correspondence regarding said roadway improvements.

5. Review WisDOT's accounts of construction activities, changes in work, construction costs, and any delays or additional work necessary to complete the project. Assess any incremental increases or decreases in quantities or costs.

6. Provide copies of WisDOT's possible work change directives, change orders, or other appropriate documents to the contractor, as contract or construction changes dictate, to expedite the progress of the construction work. Any document that would increase the CITY's costs shall be provided before execution by WisDOT and the DEPARTMENT, via email, to the CITY'S Representative for review, and the CITY'S comments thereon considered if received by the DEPARTMENT within two business days of the time it is emailed to the CITY'S Representative.

7. Furnish to the CITY a detailed breakdown of all actual construction costs including all change orders and work change directives upon completion of the project.

8. Invoice the CITY on a quarterly basis.

The CITY shall:

1. Pay the actual costs of items that are estimated in Attachment 2, beyond the federal funding amount of a HSIP-project to be sought by Waukesha County. Project costs estimated at time this Agreement is signed, are anticipated to include:

| | **Federal-funded share** | **County share** | **City share** | **TOTAL** |
|---|---|---|---|---|
| Design & WisDOT-design review | $135,720 | $ 0 | $ 15,080 | $ 150,800 |
| Construction | $738,068 | 0 | $ 83,008 | $ 821,076 |
| Real estate | 0 | 0 | $34,200 | $ 34,200 |
| **TOTAL COST DISTRIBUTION** | **$873,788** | **$ 0** | **$132,288** | **$1,006,076** |

Any additional costs that may be incurred in association with these items shall be paid for by the CITY. The CITY shall pay the total ***actual costs*** for these items when they are invoiced by the DEPARTMENT.

2. Accept and maintain ownership of the pedestrian crossing and construct the planned multi-purpose trail along Lindsay Road in the vicinity of this intersection prior to the summer 2023 intersection project construction.

3. Pay the entire actual design/construction/real estate acquisition costs for items which are the responsibility of the CITY within 30 days of receipt of an invoice from the DEPARTMENT.

4. Accept all future cost responsibilities for operating intersection area highway lighting located outside the CTH F pavement, upon completion of project construction.

5. Quit Claim to Waukesha County at no additional costs the adjacent City-owned lands necessary for project construction.

5. Designate a representative to act for the CITY under this Agreement. The representative shall be:

    Magdelene Wagner, P.E.
    Director of Public Works/City Engineer
    City of Pewaukee
    W240 N3065 Pewaukee Road
    Pewaukee, WI 53072
    262-691-0804 Office

OTHER TERMS

1. Assignment: The parties agree that there shall be no assignment or transfer of this Agreement nor of any interests, rights or responsibilities contained herein without a written amendment agreed to by both parties.
2. Amendment: The parties, by mutual consent, may amend this Agreement in writing at any time.
3. Severability: If any provision of this Agreement is held invalid under any applicable law, such invalidity shall not affect any other provision of this Agreement that can be given effect without the invalid provision and, to this end, the provisions hereof are severable.
4. Construction is currently anticipated to occur during 2023 as a HSIP-funded project by WisDOT, subject to the terms of this Agreement.
5. If this HSIP-funded project is cancelled by WisDOT, then this two party agreement becomes void between the DEPARTMENT and CITY.

Attachment 1: Conceptual Plan of Intersection Proposed Improvements, CTH F at Lindsay Rd
Attachment 2: Concept Layout Plan Cost Estimate (August 2020)

APPROVAL

This Agreement will be effective on the date of the DEPARTMENT'S signature.

| CITY: | DEPARTMENT: |
|---|---|
| City of Pewaukee | Waukesha County |
| By: _____ | By: _____ |
| | Allison Bussler |
| Title: _____ | Title: Director of Public Works |
| Date: _____ | Date: _____ |

| Address for CITY: | Address for DEPARTMENT: |
|---|---|
| City of Pewaukee<br>W240 N3065 Pewaukee Road<br>Pewaukee, WI 53072 | Waukesha County Department of<br>Public Works<br>515 W. Moreland Blvd., Room AC 210<br>Waukesha, WI 53188 |

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd) - Lindsay Rd: Restricted Crossing U-Turn (RCUT) Intersection




0 300 Feet

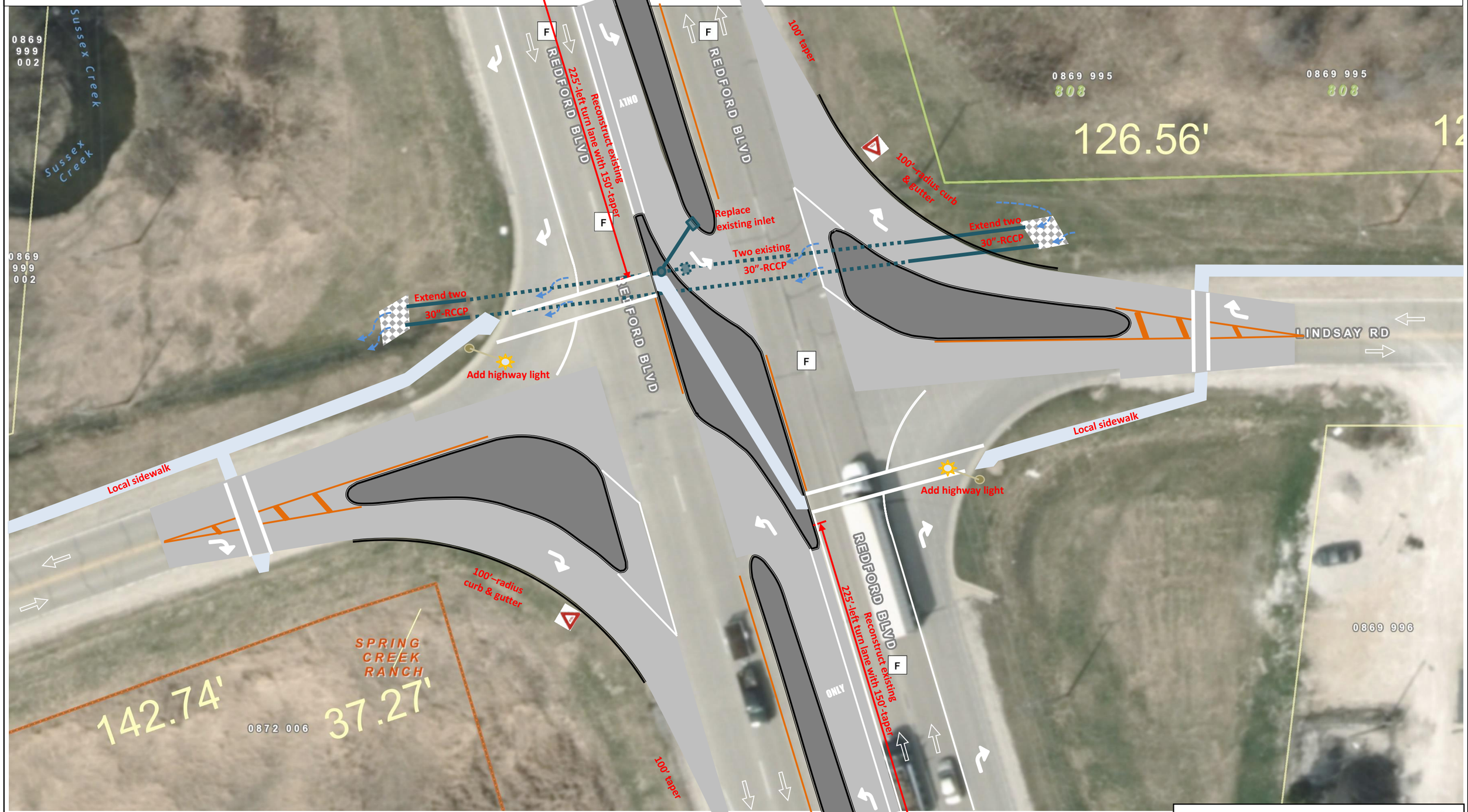
Printed: 7/8/2020

Exhibit 3A
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY LEADING THE WAY

LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd) - Lindsay Rd: *Restricted Crossing U-Turn (RCUT) Intersection*




0 30.00 Feet

Printed: 7/8/2020



Exhibit 3B

**Intersection Proposed Improvements**

CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), north of Lindsay Rd: *Restricted Crossing U-Turn (RCUT)*



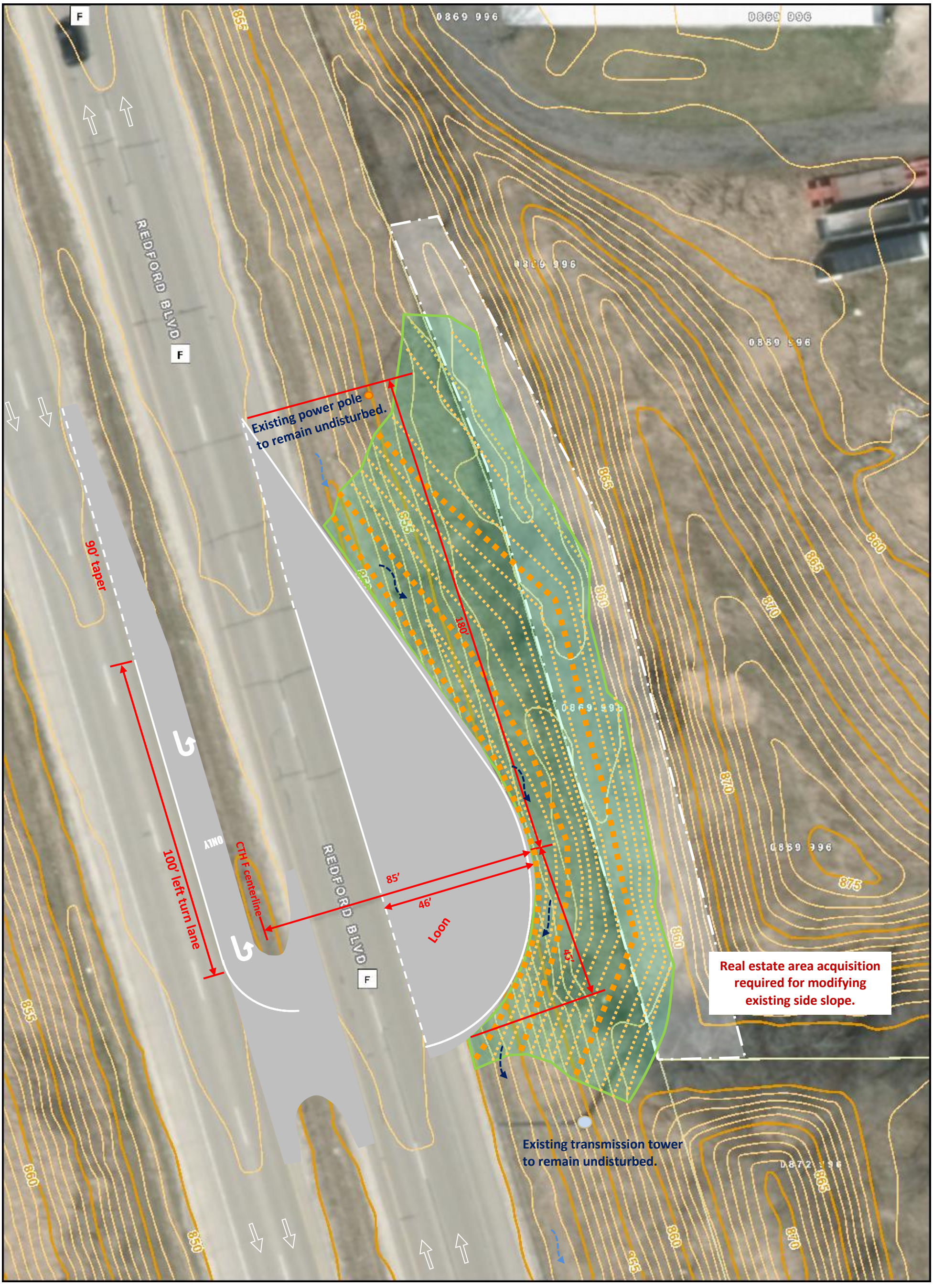

0 30.00 Feet

Printed: 7/8/2020

Exhibit 3C
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), south of Lindsay Rd: Restricted Crossing U-turn (RCUT)




0 30.00 Feet

Printed: 7/17/2020

Exhibit 3D

**Intersection Proposed Improvements**

CTH F (Redford Blvd) at Lindsay Rd

# CONCEPT LAYOUT PLAN COST ESTIMATE (August 2020)

## CTH F (Redford Blvd) / Lindsay Rd Intersection

~1400-feet / ~350 feet

**Waukesha County Project**

| ITEM NO. | Bid Item | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT COST | TOTAL COST | | Inflated cost 3.5%/year to Yr 2024 |
|---|---|---|---|---|---|---|---|---|
| 1 | 201.0105 & 201.0205 | CLEARING & GRUBBING | STA | 4 | $800.00 | $ 3,200 | 240'N + 150'S | |
| 2 | 204.0100 | REMOVE PAVEMENT | SY | 2,300 | $5.00 | $ 11,500 | [(30'x70' + 225'x10' + 240'x2')North + (30'x80' + (215'x13' + 140'x6.5)x2 + (80'x45')x2/3)Int + (30'x70' + 225'x10' + 190'x2')South]/ 9sf = (4830+9810+4730)/9 = 2152 SY | |
| 3 | 204.0150 | REMOVE CURB & GUTTER | LF | 760 | $4 | $ 3,040 | [(85' + 60')West + (225' + 225')Median + (110' + 55') East] Int = 760' | |
| 4 | 205.0100 | EXCAVATION COMMON - BORROW | CY | 8,800 | $17.00 | $ 149,600 | [(5802sf + 240'x9')x 2' ave fill NORTH + ((120'x80' X1/3)SW + (375'+90'+375')x30 MED + (130'x120' x1/3)NE )x 3 ' ave fill) Int + ((240'x80'x 6' ave cut) + (190'x9'x 2' ave fill)) SOUTH ]/ 27 cf = (15924 NORTH + 100,800 INT + 118,620 SOUTH)/27 = 8716 | |
| 5 | 305.0110 | BASE AGGREGATE DENSE 1-1/4" (10"-section) | TON | 2,200 | $18.00 | $ 39,600 | [ [(5802sf+240'x9')NORTH + [(120'x80' x1/3)SW + ((300'+90'+300')x14' MED + (150'x125' x1/3)NE )INT + (5802sf+190'x9')SOUTH] sf x 10"/12" hwy ) / 27 cf] x 2.0 T/cy = = (7,962 NORTH + 19,110 MED + 7,512 SOUTH) x 10"/12" hwy )/27] x 2.0 T/cy = 2135 | |
| 6 | 455.0115 | ASPHALTIC MATERIAL PG64-22 | TON | 65 | $5.00 | $ 325 | 5.5% of Item 460.1100 | |
| 7 | 460.1100 | HMA PAVEMENT TYPE E-3 (5.5"-section) | TON | 1,180 | $65.00 | $ 76,700 | [ ((7,962 NORTH + 19,110 MED + 7,512 SOUTH)sf x 5.5"/12" hwy ) ] x 146.7 lb/cf) / (2000 lb/T) = 1163 | |
| 8 | 465.0305 | ASPHALTIC SURFACE SAFETY ISLANDS (Rt turns, Median-Lt turns) | TON | 220 | $75.00 | $ 16,500 | [ [1500sf + (1800sf+2200sf+1800sf) + 1300sf] x (4"/12")]INT / 27 cf] x 2.0 T/cy = 212 T | |
| 9 | 465.0315 | ASPHALTIC FLUMES | SY | 10 | $60.00 | $ 600 | 85sf/9 SW = 9.5 | |
| 10 | 520.1030 | APRON ENDWALLS , 30-IN | EA | 4 | $1,100.00 | $ 4,400 | INT: 2 NW + 2 NE | |
| 11 | 602.0410 | CONCRETE SIDEWALK - 5" (6'-wide sidwalk) | SF | 2,300 | $6.50 | $ 14,950 | [(850sf + 600sf + 850sf)INT = 2300 sf | |
| 12 | 608.0430 | STORM SEWER PIPE REINFORCED CONCRETE CLASS IV, 30-IN | LF | 140 | $120.00 | $ 16,800 | INT: (25' + 25')NW + (40' + 50') NE= 140' | |
| 13 | | MANHOLE, 5-FT DIAMETER & COVER | EA | 1 | $3,300.00 | $ 3,300 | | |
| 14 | | INLET 2X3-FT & COVER | EA | 1 | $2,050.00 | $ 2,050 | | |
| 15 | 601.0411 | CONCRETE CURB & GUTTER 30-INCH TYPE D | LF | 1,910 | $26.00 | $ 49,660 | [(250' + 125')West + (225'x2 + 280' + 225'x2)Median + (235'+120') East] Int = 1910' | |
| 16 | 619.0000 | MOBILIZATION | LS | 1 | $35,000.00 | $ 35,000 | | |
| 17 | 625.0500 | SALVAGED TOPSOIL | SY | 1,850 | $3.00 | $ 5,550 | [(250'x10' + 200'x5')North + (150'x10' + 150'x10')x2 + (150'x10'))Int + (225'x20' + 200'x5')South]/ 9 sf = 1833 SY | |
| 18 | 628.1504 | SILT FENCE | LF | 1,500 | $2.50 | $ 3,750 | (325'+50')North + (100'+240'+100'+220'+20'+20')]Int + (350'+50')South = 1475' LF | |
| 19 | 628.2006 | EROSION MAT URBAN CLASS I TYPE A | SY | 2,600 | $2 | $ 5,200 | [ (300' x 10'wide x 2 SBsides)NORTH + ((150'taper x 10'wide) x 2-LT's + (200' x 10'wide x 4corners)INT + (300' x 10'wide x 2 NBsides)SOUTH ] / 9 sf = 2556 SY | |
| 20 | | REMOVE, RE-INSTALl, ADD SIGNS | LS | 1 | $6,000.00 | $ 6,000 | | |
| 21 | | TRAFFIC CONTROL (Shift CTH F lanes, close Lindsey Rd) | LS | 1 | $20,000.00 | $ 20,000 | | |
| 22 | 642.5201 | FIELD OFFICE C | LS | 1 | $9,000.00 | $ 9,000 | | |
| 23 | 646.0106 | PAVEMENT MARKINGS EPOXY 4" | LF | 3,120 | $1.50 | $ 4,680 | (505'+280')NORTH + ((225'x2+150')x2+85'+85'+90'+90')INT + (505'+280')SOUTH = 3120 | |
| 24 | 646.7420 | PAVEMENT MARKINGS EPOXY 6" (CROSSWALK) | LF | 330 | $8.00 | $ 2,640 | (27'+50'+55'+29')x2 INT = 322' | |
| 25 | | PAVEMENT MARKINGS WORDS & ARROWS | EA | 16 | $300.00 | $ 4,800 | 3 NORTH + (2+3+3+2)INT + 3 SOUTH = 16 | |
| 26 | 647.0726 | PAVEMENT MARKINGS 12" DIAGONALS | LF | 50 | $9.50 | $ 475 | (5'+8'+10'+10'+8'+5')INT = 46 | |
| 27 | | HYDROSEEDING | SY | 1,700 | $2.00 | $ 3,400 | [(250'x10' + 200'x5')North + (150'x10' + (150'x10')x2 + (150'x10'))Int + (225'x20' + 200'x5')South]/ 9 sf = 1667 SY | |
| 28 | | REMOVE EXISTING HIGHWAY LIGHTING | EA | 1 | $700 | $ 700 | | |
| 29 | | NEW HIGHWAY LIGHTING | EA | 2 | $3,000.00 | $ 6,000 | | |
| 30 | 690.0150 | SAWING ASPHALT | LF | 3,260 | $2.50 | $ 8,150 | (225'+10'+10'+90'+300'+6'+6'+6'+6')North + ((21'+60'+180'+10') + ((225'+150'+225')x2 + 100'+100' + 6'+6'+6'+6') + (21'+90'+180'+10'))Int + (225'+10'+10'+90'+260'+6'+6'+6'+6')South = 3258' LF | |
| | | | | | | | | |
| | | | | | SUBTOTAL | $ 507,570 | | |

| | | | |
|---|---|---|---|
| ABOVE MAJOR ITEMS REPRESENT **85%** OF COSTS OF SIMILAR PROJECTS | 0.85 | | |
| TOTAL CONSTRUCTION COST FOR ALL BID ITEMS | | $ 597,141 | |
| 15% Allowance for Construction Engineering & Contingencies | | $ 89,571 | |
| **TOTAL CONSTRUCTION** | | | **$686,712** $772,900 |

| REAL ESTATE ACQUISITION / EASEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| ITEM | DESCRIPTION | | | AREA (SF) | | TOTAL COST |
| 1 | SE | Parcel 86995996 | FEE & TLE | 6.25 | | $15,000 |
| | | | | | | |
| | | | | | Acquisition | $6,000 |
| | | | | | Land/TLE | $6,000 |
| | | | | | Misc/incidental | $3,000 |
| | | | | | Title Searches (1 parcel) | $400 |
| | | | | | Utilities & Miscellaneous | $0 |

| | | |
|---|---|---|
| **TOTAL REAL ESTATE** | **$30,400** | $34,215 |
| **DESIGN CONSULTANT** (**11.0%** of total construction) **+ DESIGN REVIEW** (**8.5%** of total construction) | **$133,909** | $150,716 |
| **GRAND TOTAL** | **$851,020** | **$957,831** |

Exhibit 7
**Cost Estimate**
CTH F (Redford Blvd) / Lindssay Rd Intersection

**A motion was made and seconded (I. Clark, B. Dziwulski) to approve the release of the 50 foot highway setback for the property located at W274N1490 Riverland Drive.** Motion Passed: 5-For, 0-Against.

10. Discussion and Possible Action Regarding **Ordinance 21-05** Related to Amendments to Sections 4.06, 4.09 and 4.15 of Chapter 4 - Fire Department of the City of Pewaukee Municipal Code

    Mr. Fuchs stated the City is continuing to work on the application to become delegated in the State of Wisconsin. This will allow E-Plan Exam to do the reviews which will expedite projects. He noted the State asked the City to update the Ordinance. Mr. Fuchs noted that the Fire Chief has reviewed the revisions and recommended approval.

    **A motion was made and seconded (J. Wamser, I Clark) to approve the proposed amendment to 4.06, 4.09 and 4.15 of Chapter 4 of the Pewaukee Municipal Code.** Motion Passed: 5-For, 0-Against.

11. Discussion and Possible Action Regarding Rocky Point Avenue Generator Easement to Lake Pewaukee Sanitary District

    Ms. Wagner stated Lake Pewaukee Sanitary District is putting a generator on their existing lift station at the end of Rocky Point Avenue. When Lake Pewaukee Sanitary District worked with the property owners, they wanted the lift station moved further away from the lake as to not impeded on the view from the homes. Lake Pewaukee Sanitary District is seeking an easement to place the generator, parking slab and associated gas and electric within the right of way of Rocky Point Avenue. Attorney Riffle noted that if it is approved, there will be some minor tweaks, but no substantial changes.

    **A motion was made and seconded (B. Dziwulski, R. Grosch) to approve the Rocky Point Avenue generator easement contingent upon the final approval by the City Attorney and Engineering staff**. Motion Passed: 5-For, 0-Against.

12. Discussion and Possible Action Regarding the Intermunicipal Agreement for the Lindsay Road/Redford Boulevard (CTH F) Intersection Improvements

    Ms. Wagner revisited the intermunicipal agreement that was on the March 15th Common Council agenda. Ms. Wagner stated the County has agreed to put the pedestrian crossing back into the design. Ms. Wagner noted the City will be responsible for the maintenance of the crossing and any installation above standard signage that is required for the crossing. She added the City will also be responsible for intersection lighting. Ms. Wagner is asking for approval of the intermunicipal agreement contingent on City Attorney and final Engineer review.

    Mr. Grosch asked what the additional cost to the City would be. Ms. Wagner stated the additional markings and concrete would be approximately $17,000.00, but most of those cost would be reimbursed by the HSIP grant.

    **A motion was made and seconded (B. Dziwulski, R. Grosch) to approve the intermunicipal agreement between the City and Waukesha County for the Lindsay Road/Redford Boulevard intersection improvements contingent on the final approval by the City Attorney and Engineering staff**. Motion Passed: 5-For, 0-Against.

13. Discussion and Possible Action to Move Assigned Balance of $346,511.00 from the Salt Shed to the Department of Public Works Building/Campus

**TWO-PARTY PROJECT AGREEMENT**
**Between**
**WAUKESHA COUNTY by the DEPARTMENT OF PUBLIC WORKS**
**And**
**THE CITY OF PEWAUKEE**

This Agreement is made and entered into between Waukesha County by the Department of Public Works (hereinafter called the DEPARTMENT) and the City of Pewaukee (hereinafter called the CITY) to designate the responsibilities for design, real estate acquisition, construction, and payment of certain costs associated with roadway safety improvements at the County Trunk Highway F (CTH F, also known as Redford Boulevard) and Lindsay Road intersection. Attachment 1 is a Conceptual Plan of the Intersection Proposed Improvements.

WHEREAS, the DEPARTMENT has obtained Highway Safety Improvement Program (HSIP) federal-funding from the Wisconsin Department of Transportation (WisDOT) to modify the existing CTH F/Lindsay Road full-turn intersection to a 'Restricted Crossing U-Turn Intersection' (RCUT) in the City of Pewaukee.

WHEREAS, the CITY has requested that the DEPARTMENT prioritize safety improvements at the CTH F and Lindsay Road intersection more quickly than other DEPARTMNENT projects.

WHEREAS, the CITY agrees to pay the actual costs associated with the local-share for completing the design, real estate acquisition and construction items listed in the cost estimate, attached hereto as Attachment 2, necessary to convert the CTH F/Lindsay Road intersection to a RCUT intersection.

The parties do mutually agree to the responsibilities related to the design, real estate acquisition and construction funding of said items as described below:

RESPONSIBILITIES:

The DEPARTMENT shall:

1. Complete design, real estate acquisition, contract plans, specifications and estimates for modifying the CTH F/Lindsay Road full-turn intersection to a RCUT intersection. Work directly with WisDOT staff as part of preparing construction bid documents.

2. At the request of the CITY the DEPARTMENT will include a pedestrian crossing at the intersection as shown in Attachment 1. Standard pedestrian signage and pavement markings will be included a part of this agreement. If the CITY requests specialized pedestrian signage, crossing enhancements and lighting, a separate agreement will be required.

3. Monitor progress of ongoing field inspection and contract administration performed by WisDOT during construction for HSIP-funded projects. WisDOT would publicly bid said roadway improvement in accordance with all federal and state laws.

4. Make available to the City, with reasonable notice, bidding documents, bid results, notice of award, and copies of all records recommendations of awards, reports, engineer findings, and WisDOT's correspondence regarding said roadway improvements.

5. Review WisDOT's accounts of construction activities, changes in work, construction costs, and any delays or additional work necessary to complete the project. Assess any incremental increases or decreases in quantities or costs.

6. Provide copies of WisDOT's possible work change directives, change orders, or other appropriate documents to the contractor, as contract or construction changes dictate, to expedite the progress of the construction work. Any document that would increase the CITY's costs shall be provided before execution by WisDOT and the DEPARTMENT, via email, to the CITY'S Representative for review, and the CITY'S comments thereon considered if received by the DEPARTMENT within two business days of the time it is emailed to the CITY'S Representative.

7. Furnish to the CITY a detailed breakdown of all actual construction costs including all change orders and work change directives upon completion of the project.

8. Invoice the CITY on a quarterly basis.

The CITY shall:

1. Pay the actual costs of items that are estimated in Attachment 2, beyond the federal funding amount of a HSIP-project to be sought by Waukesha County. Project costs estimated at time this Agreement is signed, are anticipated to include:

| | **Federal-funded share** | **County share** | **City share** | **TOTAL** |
|---|---|---|---|---|
| Design & WisDOT-design review | $135,720 | $ 0 | $ 15,080 | $ 150,800 |
| Construction | $738,068 | 0 | $ 83,008 | $ 821,076 |
| Real estate | 0 | 0 | $34,200 | $ 34,200 |
| **TOTAL COST DISTRIBUTION** | **$873,788** | **$ 0** | **$132,288** | **$1,006,076** |

Any additional costs that may be incurred in association with these items shall be paid for by the CITY. The CITY shall pay the total ***actual costs*** for these items when they are invoiced by the DEPARTMENT.

2. Accept and maintain ownership of the pedestrian crossing and construct the planned multi-purpose trail along Lindsay Road in the vicinity of this intersection prior to the summer 2023 intersection project construction.

3. Pay the entire actual design/construction/real estate acquisition costs for items which are the responsibility of the CITY within 30 days of receipt of an invoice from the DEPARTMENT.

4. Accept all future cost responsibilities for operating intersection area highway lighting located outside the CTH F pavement, upon completion of project construction.

5. Quit Claim to Waukesha County at no additional costs the adjacent City-owned lands necessary for project construction.

5. Designate a representative to act for the CITY under this Agreement. The representative shall be:

Magdelene Wagner, P.E.
Director of Public Works/City Engineer
City of Pewaukee
W240 N3065 Pewaukee Road
Pewaukee, WI 53072
262-691-0804 Office

OTHER TERMS

1. Assignment: The parties agree that there shall be no assignment or transfer of this Agreement nor of any interests, rights or responsibilities contained herein without a written amendment agreed to by both parties.
2. Amendment: The parties, by mutual consent, may amend this Agreement in writing at any time.
3. Severability: If any provision of this Agreement is held invalid under any applicable law, such invalidity shall not affect any other provision of this Agreement that can be given effect without the invalid provision and, to this end, the provisions hereof are severable.
4. Construction is currently anticipated to occur during 2023 as a HSIP-funded project by WisDOT, subject to the terms of this Agreement.
5. If this HSIP-funded project is cancelled by WisDOT, then this two party agreement becomes void between the DEPARTMENT and CITY.

Attachment 1: Conceptual Plan of Intersection Proposed Improvements, CTH F at Lindsay Rd
Attachment 2: Concept Layout Plan Cost Estimate (August 2020)

APPROVAL

This Agreement will be effective on the date of the DEPARTMENT'S signature.

| CITY: | | DEPARTMENT: | |
|---|---|---|---|
| City of Pewaukee | | Waukesha County | |
| By: | STEVE BIERCE | By: | Allison Bussler |
| | | | Allison Bussler |
| Title: | MAYOR | Title: | Director of Public Works |
| Date: | JUNE 18, 2021 | Date: | 6-24-21 |

| Address for CITY: | Address for DEPARTMENT: |
|---|---|
| City of Pewaukee<br>W240 N3065 Pewaukee Road<br>Pewaukee, WI 53072 | Waukesha County Department of Public Works<br>515 W. Moreland Blvd., Room AC 210<br>Waukesha, WI 53188 |

LAND INFORMATION SYSTEMS DIVISION

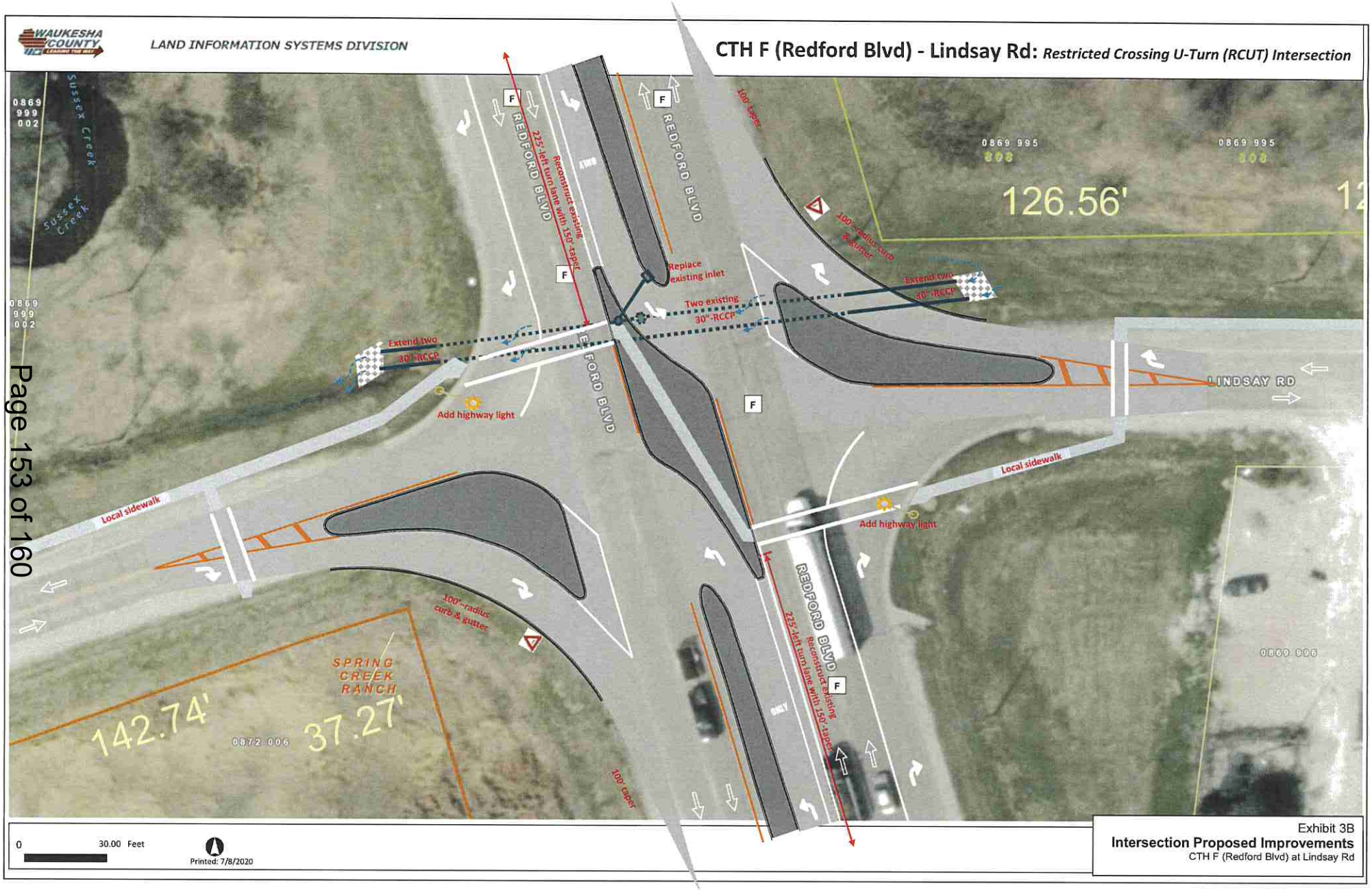
# CTH F (Redford Blvd) - Lindsay Rd: Restricted Crossing U-Turn (RCUT) Intersection




0 300 Feet

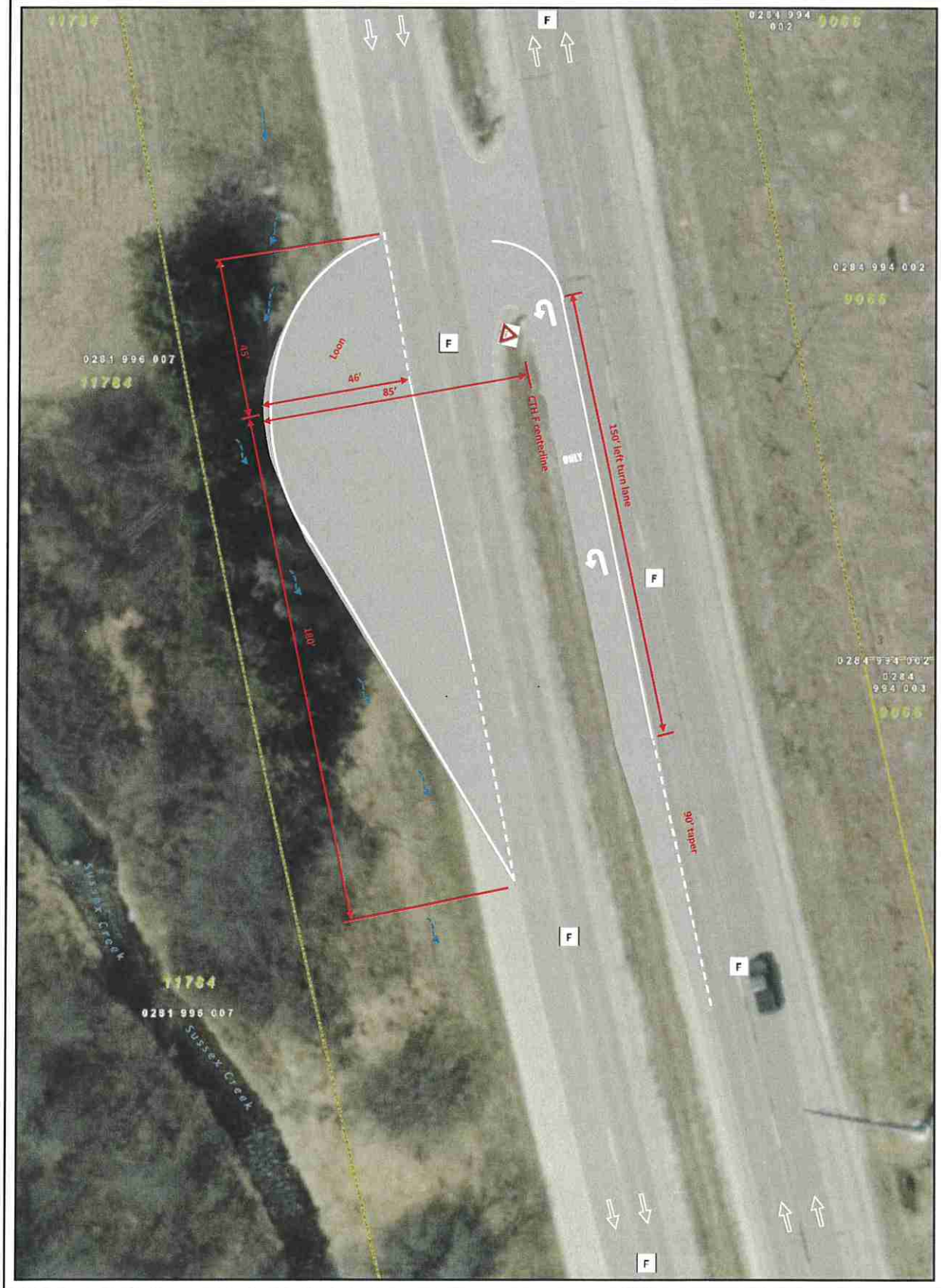
Printed: 7/8/2020

Exhibit 3A
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd


WAUKESHA COUNTY
LAND INFORMATION SYSTEMS DIVISION
CTH F (Redford Blvd) - Lindsay Rd: Restricted Crossing U-Turn (RCUT) Intersection
REDFORD BLVD
Reconstruct existing 225'-left turn lane with 150'-taper
Replace existing inlet
Two existing 30"-RCCP
Extend two 30"-RCCP
Add highway light
100'-radius curb & gutter
100' taper
LINDSAY RD
Local sidewalk
SPRING CREEK RANCH
126.56'
142.74'
37.27'
Sussex Creek
0869 999 002
0869 995 008
0872 006
0869 996
0
30.00 Feet
Printed: 7/8/2020
Exhibit 3B
Intersection Proposed Improvements
CTH F (Redford Blvd) at Lindsay Rd

WAUKESHA COUNTY LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), north of Lindsay Rd: *Restricted Crossing U-Turn (RCUT)*



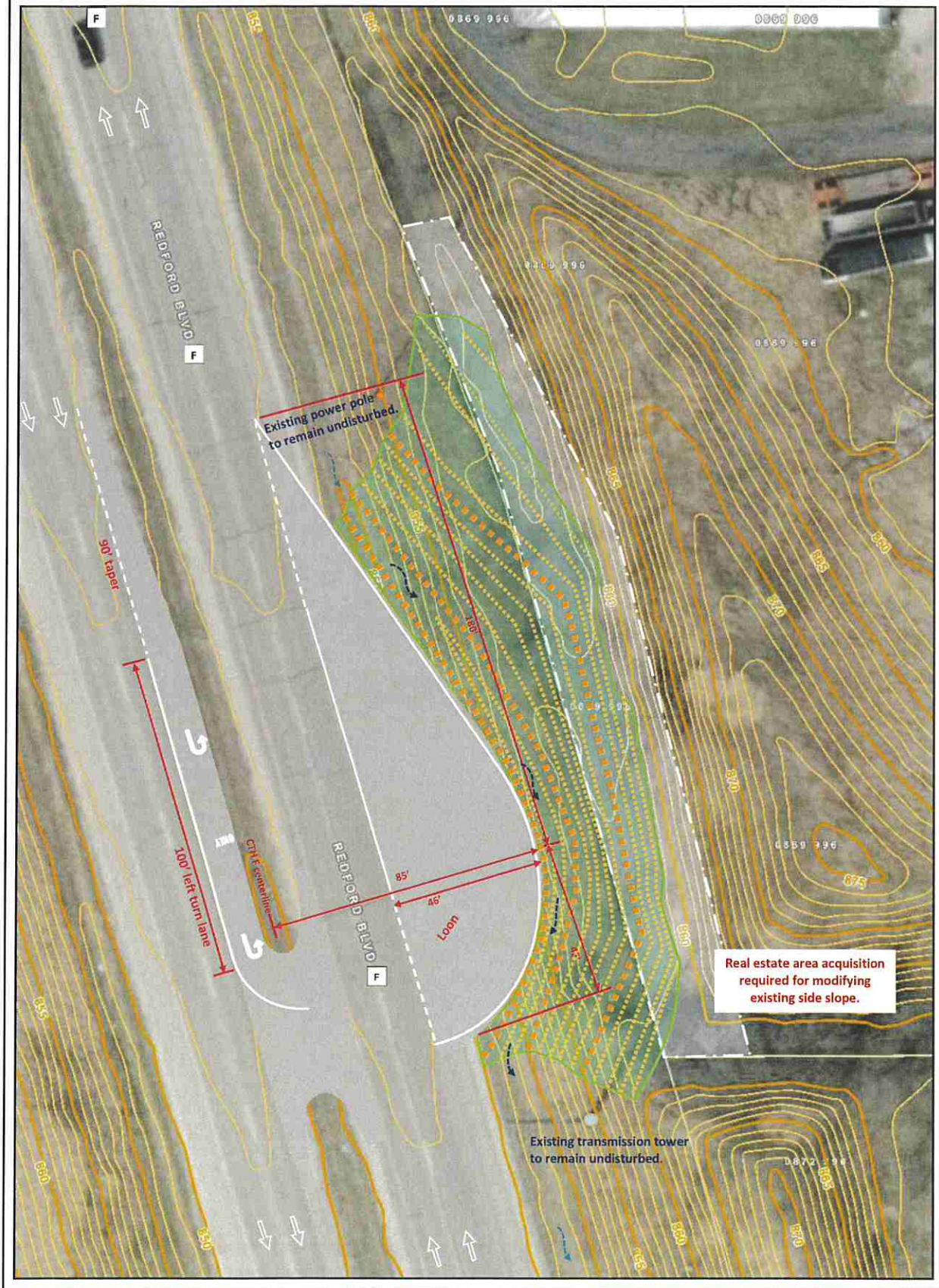

0 30.00 Feet

Printed: 7/8/2020

Exhibit 3C
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

LAND INFORMATION SYSTEMS DIVISION

# CTH F (Redford Blvd), south of Lindsay Rd: Restricted Crossing U-turn (RCUT)




0 30.00 Feet

Printed: 7/17/2020

Exhibit 3D
**Intersection Proposed Improvements**
CTH F (Redford Blvd) at Lindsay Rd

# CONCEPT LAYOUT PLAN COST ESTIMATE (August 2020)

## CTH F (Redford Blvd) / Lindsay Rd Intersection

~1400-feet / ~350 feet

**Waukesha County Project**

| ITEM NO. | Bid Item | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT COST | TOTAL COST | | Inflated cost (3.5%/year to Yr 2024) |
|---|---|---|---|---|---|---|---|---|
| 1 | 201.0105 & 201.0205 | CLEARING & GRUBBING | STA | 4 | $800.00 | $ 3,200 | 240'N + 150'S | |
| 2 | 204.0100 | REMOVE PAVEMENT | SY | 2,300 | $5.00 | $ 11,500 | [(30'x70' + 225'x10' + 240'x2')North + (30'x80' + (215'x13' + 140'x6.5)x2 + (80'x45')x2/3)Int + (30'x70' + 225'x10' + 190'x2')South]/ 9sf = (4830+9810+4730)/9 = 2152 SY | |
| 3 | 204.0150 | REMOVE CURB & GUTTER | LF | 760 | $4 | $ 3,040 | [(85' + 60')West + (225' + 225')Median + (110' + 55') East] Int = 760' | |
| 4 | 205.0100 | EXCAVATION COMMON - BORROW | CY | 8,800 | $17.00 | $ 149,600 | [(5802sf + 240'x9')x 2' ave fill NORTH + ((120'x80' X1/3)SW + (375'+90'+375')x30 MED + (130'x120' x1/3)NE )x 3' ave fill) Int + ((240'x80'x 6' ave cut) + (190'x9'x 2' ave fill)) SOUTH ]/ 27 cf = (15924 NORTH + 100,800 INT + 118,620 SOUTH)/27 = 8716 | |
| 5 | 305.0110 | BASE AGGREGATE DENSE 1-1/4" (10"-section) | TON | 2,200 | $18.00 | $ 39,600 | [ ((5802sf+240'x9')NORTH + [((120'x80' x1/3)SW + ((300'+90'+300')x14' MED + (150'x125' x1/3)NE )INT + (5802sf+190'x9')SOUTH] sf x 10"/12" hwy ) / 27 cf] x 2.0 T/cy = = (7,962 NORTH + 19,110 MED + 7,512 SOUTH) x 10"/12" hwy )/27] x 2.0 T/cy = 2135 | |
| 6 | 455.0115 | ASPHALTIC MATERIAL PG64-22 | TON | 65 | $5.00 | $ 325 | 5.5% of Item 460.1100 | |
| 7 | 460.1100 | HMA PAVEMENT TYPE E-3 (5.5"-section) | TON | 1,180 | $65.00 | $ 76,700 | [ ((7,962 NORTH + 19,110 MED + 7,512 SOUTH)sf x 5.5"/12" hwy ) ] x 146.7 lb/cf) / (2000 lb/Ti = 1163 | |
| 8 | 465.0305 | ASPHALTIC SURFACE SAFETY ISLANDS (Rt turns, Median-Lt turns) | TON | 220 | $75.00 | $ 16,500 | [ [1500sf + (1800sf+2200sf+1800sf) + 1300sf] x (4"/12")]/INT / 27 cf] x 2.0 T/cy = 212 T | |
| 9 | 465.0315 | ASPHALTIC FLUMES | SY | 10 | $60.00 | $ 600 | 85sf/9 SW = 9.5 | |
| 10 | 520.1030 | APRON ENDWALLS , 30-IN | EA | 4 | $1,100.00 | $ 4,400 | INT: 2 NW + 2 NE | |
| 11 | 602.0410 | CONCRETE SIDEWALK - 5" (6'-wide sidwalk) | SF | 2,300 | $6.50 | $ 14,950 | [(850sf + 600sf + 850sf)INT = 2300 sf | |
| 12 | 608.0430 | STORM SEWER PIPE REINFORCED CONCRETE CLASS IV, 30-IN | LF | 140 | $120.00 | $ 16,800 | INT: (25' + 25')NW + (40' + 50') NE= 140' | |
| 13 | | MANHOLE, 5-FT DIAMETER & COVER | EA | 1 | $3,300.00 | $ 3,300 | | |
| 14 | | INLET 2X3-FT & COVER | EA | 1 | $2,050.00 | $ 2,050 | | |
| 15 | 601.0411 | CONCRETE CURB & GUTTER 30-INCH TYPE D | LF | 1,910 | $26.00 | $ 49,660 | [(250' + 125')West + (225'x2 + 280' + 225'x2)Median + (235'+120') East] Int = 1910' | |
| 16 | 619.0000 | MOBILIZATION | LS | 1 | $35,000.00 | $ 35,000 | | |
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| 19 | 628.2006 | EROSION MAT URBAN CLASS I TYPE A | SY | 2,600 | $2 | $ 5,200 | [ (300' x 10'wide x 2 SBsides)NORTH + ((150'taper x 10'wide) x 2-LT's + (200' x 10'wide x 4corners)INT + (300' x 10'wide x 2 NBsides)SOUTH ] / 9 sf = 2556 SY | |
| 20 | | REMOVE, RE-INSTALL, ADD SIGNS | LS | 1 | $6,000.00 | $ 6,000 | | |
| 21 | | TRAFFIC CONTROL (Shift CTH F lanes, close Lindsey Rd) | LS | 1 | $20,000.00 | $ 20,000 | | |
| 22 | 642.5201 | FIELD OFFICE C | LS | 1 | $9,000.00 | $ 9,000 | | |
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| 28 | | REMOVE EXISTING HIGHWAY LIGHTING | EA | 1 | $700 | $ 700 | | |
| 29 | | NEW HIGHWAY LIGHTING | EA | 2 | $3,000.00 | $ 6,000 | | |
| 30 | 690.0150 | SAWING ASPHALT | LF | 3,260 | $2.50 | $ 8,150 | [225'+10'+10'+90'+300'+6'+6'+6'+6')North + ((21'+60'+180'+10') + ((225'+150'+225')x2 + 100'+100' + 6'+6'+6'+6') + (21'+90'+180'+10')]Int + [225'+10'+10'+90'+260'+6'+6'+6'+6')South = 3258' LF | |
| | | | | | | | | |
| | | | | | SUBTOTAL | $ 507,570 | | |

| | | | |
|---|---|---|---|
| ABOVE MAJOR ITEMS REPRESENT **85%** OF COSTS OF SIMILAR PROJECTS | 0.85 | | |
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| 15% Allowance for Construction Engineering & Contingencies | | $ 89,571 | |
| **TOTAL CONSTRUCTION** | | | **$686,712** $772,900 |

| REAL ESTATE ACQUISITION / EASEMENTS | | | | | | |
|---|---|---|---|---|---|---|
| ITEM | DESCRIPTION | | | AREA (SF) | | TOTAL COST |
| 1 | SE | Parcel 86995996 | FEE & TLE | 6.25 | | $15,000 |
| | | | | | | |
| | | | | | Acquisition | $6,000 |
| | | | | | Land/TLE | $6,000 |
| | | | | | Misc/incidental | $3,000 |
| | | | | | Title Searches (1 parcel) | $400 |
| | | | | | Utilities & Miscellaneous | $0 |

| | | |
|---|---|---|
| **TOTAL REAL ESTATE** | **$30,400** | $34,215 |
| **DESIGN CONSULTANT** (11.0% of total construction) + **DESIGN REVIEW** (8.5% of total construction) | **$133,909** | $150,716 |
| **GRAND TOTAL** | **$851,020** | **$957,831** |

Exhibit 7
**Cost Estimate**
CTH F (Redford Blvd) / Lindssay Rd Intersection

**Administration Division**
W240N3065 Pewaukee Road • Pewaukee, WI 53072
Phone: (262) 691-0770 • Fax: (262) 691-1798
www.cityofpewaukee.us

August 5, 2020

Highway Safety Improvement Program
Wisconsin Department of Transportation

Subject: 2021-2024 Highway Safety Improvement Program
CTH F (Redford Boulevard)/Lindsay Road Intersection – Waukesha County

Dear HSIP Coordinator and Reviewers:

The City of Pewaukee is in support of Waukesha County's Highway Safety Improvement Program (HSIP) project application for the intersection improvements at CTH F (Redford Boulevard) and Lindsay Road. The City funded a review of the intersection due to an increasing number of severe crashes occurring at this intersection. The results of the study indicated safety improvements were warranted at the intersection.

CTH F is a four lane divided highway with a 55 mph speed limit. Lindsay Road is a two lane roadway controlled at the intersection by stop signs. As the County has outlined in the application, the crashes typically occur crossing the second 2 lanes of traffic. The median is narrow enough that motorists do not typically stop at the median. With the increase in traffic on CTH F, and the increase in traffic on Lindsay Road, the intersection crashes have increased over the last year. We have experienced four severe crashes just in the last four months.

The study recommended the restricted crossing U-turn (RCUT) at the intersection. The City of Pewaukee has committed to partnering with Waukesha County on the design and construction of the intersection improvements. The City of Pewaukee has also committed to funding the portions of the intersection improvements beyond the funding provided by this grant, if awarded.

The City of Pewaukee strongly supports and endorses the RCUT intersection improvement project. If at all possible, we would ask this project be awarded funding at your earliest date due to the increase in severe accidents occurring at the intersection.

Thank you for your consideration. If you have any questions or concerns, please feel free to contact our office at (262) 691-0804.

Sincerely,

Scott Klein
City Administrator

Cc: Common Council; Magdelene Wagner, P.E., Director of Public Works/City Engineer
Allison Bussler, Director of Public Works, Waukesha County; Bruce Barnes, P.E., PTOE, Waukesha County

**Department of Public Works**
**Engineering Division**
W240N3065 Pewaukee Road • Pewaukee, WI 53072
Phone: (262) 691-0804 • Fax: (262) 691-5729
Email: publicworks@pewaukee.wi.us

May 17, 2021

Allison Bussler
Public Works Director
Waukesha County Department of Public Works
515 West Moreland Boulevard, AC 220
Waukesha, WI 53188

Dear Ms. Bussler:

The City of Pewaukee (City) appreciates all your efforts to address the safety concerns of the City residents at the intersection of Redford Boulevard (CTH F) and Lindsay Road intersection. We were grateful to see the Highway Safety Improvement Program (HSIP) committee agreed with our concerns and approved the grant.

Upon receipt of the Inter Municipal Agreement from the County to support this project, we were surprised to see the pedestrian crossing that was discussed and presented prior to and shown as part of the HSIP application was eliminated.

The City has committed and is currently designing a multi-purpose trail along Lindsay Road from Duplainville Road to the Pewaukee Sports Complex, and along Duplainville Road from Weyer Road south to Green Road (see the attached map with its proposed location). The construction of the trails connect two of our City parks, Wagner Park and Pewaukee Sports Complex, as well as connecting numerous subdivisions to the parks. The City anticipates the construction of this trail as part of the Duplainville Road reconstruction project in 2022.

City and County staff discussed having this crossing at an existing signalized intersection. Unfortunately, this would not be a realistic alternative. The closest signalized intersection is Lisbon Road (CTH K), approximately 3,550 feet north, however this intersection is outside of the City's jurisdiction in the Town of Lisbon, and would require additional trail installed along CTH K and Duplainville Road. In addition, traffic along CTH K is uncontrolled at Duplainville Road, has a large volume of traffic, a large volume of truck traffic, and often backs up due to the railroad crossing yielding another dangerous intersection for pedestrians. The next closest controlled intersection is Capital Drive (STH 190) and CTH F, approximately 7,100 feet south, which is less than ideal due to the current configuration of off ramps from Capital Drive to CTH F and the substantial grade difference between STH 190 and CTH F. A trail would need to be installed along CTH F or along STH 190, STH 164, Swan Road, and Lindsay Road to the park - a substantially longer connection.

The Pewaukee Sports Complex is planned to have walking trails within the park. In addition, an inclusive playground/splash pad is planned for this park.


**Magdelene Wagner, P.E., Director of Public Works**

The City is respectively requesting the pedestrian crossing be added to the intersection improvement project. If you need additional information or would like to discuss this further, please feel free to contact our office at (262) 691-0770.

Sincerely,

Steven Bierce
Mayor

Sincerely,

Magdelene Wagner, P.E.
Director of Public Works/City Engineer

Cc: Scott Klein, City Administrator
Karen Braun, Engineering Manager, Waukesha County

LAND INFORMATION SYSTEMS DIVISION

# Waukesha County GIS Map




0 1,000.00 Feet

The information and depictions herein are for informational purposes and Waukesha County specifically disclaims accuracy in this reproduction and specifically admonishes and advises that if specific and precise accuracy is required, the same should be determined by procurement of certified maps, surveys, plats, Flood Insurance Studies, or orther official means. Waukesha County will not be responsible for any damages which result from third party use of the information and depictions herein, or for use which ignores this warning.

**Notes:**

Trail under design - Construction 2022

Future Trails

Current on road Trail

Printed: 5/17/2021

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 9.

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action Regarding the Northmound Industrial Development

***BACKGROUND:***

Northmound Development completed the Dynamic Compaction of the site and constructed a building on the site. The City released the letter of credit guarantee for this development last year. The development is looking to clean up the property title which includes terminating completed development agreements.

In addition, the Development is looking to amend the development agreement for the road and storm improvements. The improvements are completed and the City has accepted the improvements. The development is in the one year guarantee period so it is not able to be terminated. The developer would like to amend a few sections of the original agreement.

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

Council approve the amendment to the Development Agreement and terminate the Dynamic Compaction Development Agreement contingent on City Attorney and City Engineer review and approval.

**ATTACHMENTS:**

Description

Second Amendment to the DA

DA Termination for dynamic compaction

~~FIRST~~ SECOND AMENDMENT DEVELOPER'S AGREEMENT
FOR
BBC NORTHMOUND, LLC
CITY of PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

THIS AGREEMENT made this _____ day of _____, 2022, between BBC NORTHMOUND, LLC, a Wisconsin limited liability company, 3885 N. Brookfield Rd #200, Brookfield, WI 53045, hereinafter called "**Developer**", and the City of Pewaukee in the County of Waukesha and the State of Wisconsin, hereinafter called the "**City**". Developer and City are sometimes referred to herein as the "Parties".

WITNESSETH:

WHEREAS, the Developer is the owner of land in the City, said land being described on EXHIBIT A attached hereto and incorporated herein, hereinafter called "**Subject Lands**"; and

WHEREAS, the Developer and the City entered into that certain Devloper's Agreement for BBC Northmound, LLC dated April 26, 2019 (the "**Developer's Agreement**") pertaining to the Subject Lands;

WHEREAS, Developer has completed construction of all of the improvements contemplated by the Developer's Agreement and the Certificate of Occupancy was issued on April 22, 2020;

WHEREAS, the Public Improvements have been accepted by the City;

WHEREAS, the Parties desire to amend the Developer's Agreement.

**W I T N E S S E T H:**

**NOW, THEREFORE**, in consideration of the mutual promises, terms and conditions herein contained, Developer and City hereby agree as follows:

1. Recitals; Capitalized Terms. The foregoing recitals are true and correct, and incorporated by reference as if more fully set forth herein. All capitalized terms used but not defined herein shall have the meanings given to them in the Developer's Agreement.

2. Assignment. Section XXIII of the Developer's Agreement shall be be revised as follows: the Developer may assign the Developer's Agreement to any party (i) that is approved in writing by the City, which approval shall not be unreasonably withheld or delayed; and (ii) which takes fee simple title to the Subject Property; and (iii) which agrees to all terms and conditions of the Developer's Agreement.

3. Authorization. Each party represents that the person executing this First Amendment for such party is acting on behalf of such party and is duly authorized to execute this First Amendment for such party.

4. Governing Law. This Release shall be deemed to be made under, and shall be construed in accordance with, and shall be governed by, the laws of the state of Wisconsin.

5. Successors and Assigns. All covenants and agreements hereunder shall be binding upon and inure to the benefit of and be enforceable by or against each of the parties hereto and their respective successors and assigns.

6. Entire Agreement/Modifications. The Developer's Agreement, as amended herein, represents the entire agreement between the parties. No modification or waiver hereof shall in any event be effective unless the same shall be in writing and signed by the person against whom enforcement thereof is sought, and then such modification or waiver shall be effective only in the specific instance and for the purpose for which given.

7. Miscellaneous. In the event of any conflict between the terms, conditions and provisions of the Developer's Agreement and this First Amendment, the terms, conditions and provisions of this First Amendment shall prevail. This First Amendment may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Signatures transmitted via facsimile, PDF or other format by electronic mail or via digital signature and shall be binding upon Developer and City with the same force and effect as original signatures.

**(Signatures contained on the following page.)**

**IN WITNESS WHEREOF**, this First Amendment has been executed as of the date and year first above written.

**CITYOF PEWAUKEE**

By:_____
Steve Bierce, Mayor

Attest: _____
By: Kelly Tarczewski, Clerk/Treasurer

**IN WITNESS WHEREOF,** this First Amendment has been executed as of the date and year first above written.

**BBC NORTHMOUND, LLC**

By:_____
Nelson E. Williams, Managing Member

EXHIBIT A

**Legal Description of the Property**

Lot 1, Certified Survey Map 11943, recorded in Book 121, page 77, as Document No. 4438798, being all of Lot 1 of Certified Survey Map No. 9037 and a part of vacated Northmound Drive, being a part of the Northeast 1/4 of the Northwest 1/4 of Section 25, Township 7 North, Range 19 East, in the City of Pewaukee, Waukesha County, Wisconsin.

Parcel No. PWC 0962998007

Address per tax roll: W226N918 Northmound Drive

**TERMINATION AND RELEASE OF DYNAMIC COMPACTION AND EARLY GRADING AGREEMENT**

**THIS TERMINATION AND RELEASE OF DYNAMIC COMPACTION AND EARLY GRADING AGREEMENT FOR BBC NORTHMOUND, LLC DEVELOPMENT PROJECT NORTHMOUND ROAD – PEWAUKEE, WICSONSIN** ("***Release***") is executed this ___ day of _____, 2022, by and between the **CITY OF PEWAUKEE**, a municipal corporation (the "***City***") and **BBC NORTHMOUND, LLC**, a Wisconsin limited liability company ("***BBC***").

**RECITALS**

A. The City and BBC are parties to that certain Dynamic Compaction and Early Grading Agreement – BBC Northmound, LLC Development Project Northmound Road – Pewaukee, WI dated April 26, 2019, a copy of which is attached hereto as Exhibit A (the "***Agreement Document"***);

B. BBC has completed the dynamic compaction at the property known as W226 N918 Northmound Drive, Waukesha, Wisconsin, as further described in the attached Exhibit B (the "***Property***") pursuant to the Dynamic Compaction Plan set forth as Exhibit B to the Agreement Document (the "***Plan***").

C. The City and BBC desire to terminate and release their rights relating to the Property under the Agreement Document.

**AGREEMENT**

**NOW, THEREFORE**, in consideration of the recitals and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and BBC hereby agree as follows:

1. Termination and Release. At the Common Council meeting on November 15, 2021, the Common Council agreed to release the letter of credit required by the Agreement Document and confirmed that "the well was monitored and there was no impact" (as set forth in the Common Council Meeting Minutes for November 15, 2021). Therefore, the City and BBC hereby terminate, release, discharge, and abandon all of their right, title and interest in the Agreement Document, and hereby agree that they shall have no further rights, title, interest or obligations thereunder.

2. Authority. The persons executing this Release represent and warrant that they have the legal authority to bind the respective party for which signature is made.

3. Governing Law. This Release shall be deemed to be made under, and shall be construed in accordance with, and shall be governed by, the laws of the state of Wisconsin.

4. Miscellaneous. The Agreement Document and this Release represent the entire agreement relating to the dynamic compaction of the Property. No modification or waiver hereof shall in any event be effective unless the same shall be in writing and signed by all parties. If any term or provision of this Release, or the application thereof to any person or circumstance, shall to any extent be invalid or unenforceable, the remainder of the Release, or the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected hereby, and each provision of the Release shall be valid and enforceable to the extent permitted by law. This Release may be executed in one or more counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Signatures transmitted via facsimile, PDF or other format by electronic mail or via digital signature and shall be binding upon the City and BBC with the same force and effect as original signatures.

[***Signatures Appear of the Following Page***]

**IN WITNESS WHEREOF**, said **CITYOF PEWAUKEE** has caused these presents to be executed on its behalf by its duly authorized executive this ___ day of _____, 2022.

**CITYOF PEWAUKEE**

By:_____
Steve Bierce, Mayor

Attest: _____
By: Kelly Tarczewski, Clerk/Treasurer

**IN WITNESS WHEREOF**, said **BBC NORTHMOUND, LLC** has caused these presents to be executed on its behalf by its duly authorized executive this ___ day of _____, 2022

**BBC NORTHMOUND, LLC**

By:_____
Nelson E. Williams, Managing Member

Instrument drafted by:
Lisa Wood, Esq. of Davis & Kuelthau, s.c.,
111 East Kilbourn Avenue, Suite 1400
Milwaukee, WI 53202

**EXHIBIT A**

**Copy of the Agreement Document**

(see attached)

**EXHIBIT B**

**Legal Description of the Property**

Lot 1, Certified Survey Map 11943, recorded in Book 121, page 77, as Document No. 4438798, being all of Lot 1 of Certified Survey Map No. 9037 and a part of vacated Northmound Drive, being a part of the Northeast 1/4 of the Northwest 1/4 of Section 25, Township 7 North, Range 19 East, in the City of Pewaukee, Waukesha County, Wisconsin.

Parcel No. PWC 0962998007

Address per tax roll: W226N918 Northmound Drive

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 10.

**DATE:** March 7, 2022

**DEPARTMENT:** Public Works

**PROVIDED BY:** Magdelene Wagner

***SUBJECT:***

Discussion and Possible Action to Enact the 2022 Spring Weight Limits.

***BACKGROUND:***

The City of Pewaukee will impose spring weight limit restrictions on city streets, with enforcement estimated to begin at 6:00 a.m. on Monday, March 14, 2022, and ending at 6:00 p.m. on Friday, March 25, 2022 with the exact dates to be determined by the Director of Public Works/City Engineer depending on weather and road conditions. The actual dates of enforcement will be posted on the City of Pewaukee's website and in the field a minimum 48 hours prior to enforcement. In addition, depending on weather conditions, the tentative March 25th end date may be extended upon 48 hours advanced notice posted on the City of Pewaukee website (cityofpewaukee.wi.us).

Spring weight restrictions will be effective for the following streets:

Weyer Road
Lindsay Road
Green Road
Swan Road
Yench Road (both sections)
Glacier Road
Ishnala Trail
Sherwood Forest Drive & Nottingham Drive
Northview Road
Watertown Road (North Avenue to Springdale Rd)
Highfield Drive (Highfield Court to Broken Hill Circle South)

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***

Common Council enacts the 2022 Spring Weight Limits with exact dates to be determined by the Director of Public Works/City Engineer and posted in the field and on the website a minimum 48 hours prior to enforcement beginning.

# CITY OF PEWAUKEE
# COMMON COUNCIL AGENDA ITEM 11.

**DATE:** March 7, 2022

**DEPARTMENT:** Clerk/Treasurer

**PROVIDED BY:**

***SUBJECT:***

Discussion and Possible Action to Approve the Special Event Permit for Farmers' Market at Christ Evangelical Lutheran Church Located at W40 N3103 Pewaukee Road on Wednesdays from June 1st through September 28th, 2022 and Consider Waiving Fees [Tarczewski]

***BACKGROUND:***

***FINANCIAL IMPACT:***

***RECOMMENDED MOTION:***