

Office of the Clerk/Treasurer

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

REVISED

**COMMON COUNCIL
MEETING NOTICE AND AGENDA**

Monday, March 2, 2020

7:00 PM

Common Council Chambers ~ Pewaukee City Hall
W240 N3065 Pewaukee Road

-
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 January 20, 2020
 - 3.2. Approval of Common Council Meeting Minutes Dated February 3, 2020
 - 3.3. Approval of Accounts Payable Listing Dated March 2, 2020
 - 3.4. Approval of Bartender Licenses
 - 3.5. Establish the 2020 Paving Assessment Cap in the Amount of \$2,684
 4. Presentation of Lindsay Road and Redford Boulevard (CTH F) Intersection Study [Wagner / Traffic Analysis and Design, Inc.]
 - 4.1 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.
 - 4.2 Discussion and Possible Action to Authorize Traffic Analysis & Design, Inc. to Complete an Operation Analysis for a Reduced-Conflict-U-Turn (RCUT) Configuration in the Amount of \$2,000.
 5. **PUBLIC HEARING**, Discussion and Possible Action Regarding a Conditional Use Permit for Precision Diagnostics Located at W231 N2844 Roundy Circle East (PWC 0917-994-018) for the Purpose of Calibrating Vehicle Cameras and Sensors Post-Collision Repair [Fuchs]
 6. **PUBLIC HEARING**, Discussion and Possible Action Regarding a Conditional Use Permit for Hanrahan's Small Engine Located at N15 W22180 Watertown Road (PWC 0960-999-015) for the Purpose of Servicing and Selling Lawnmowers and Snow Blowers [Fuchs]
 7. **PUBLIC HEARING**, Discussion and Possible Action Regarding the Plan Commission Recommendation for a Comprehensive Master Plan Amendment to Change the Year 2050 Land Use/Transportation Plan Use Designation for Arce Handyman LLC for Property Located on Bluemound Road (PWC 0951-995-001) From Manufacturing/Fabrication/Warehousing to

Manufacturing/Fabrication/Warehousing and Flood Plains, Lowland and Upland Conservancy, and Other Natural Areas (Lot 1); and From Manufacturing/Fabrication/Warehousing to Medium Density Residential (6,500 SQ. Ft. - 1/2 AC./Dwelling Unit) and Floodplains, Lowland and Upland Conservancy, and Other Natural Areas (Lot 2) [Fuchs]

8. **PUBLIC HEARING**, Discussion and Possible Action Regarding the Plan Commission Recommendation for a Conditional Use Permit and Site and Building Plans for Arce Handyman LLC for Property Located on Bluemound Road (PWC 0951-995-001) for the Purpose of Constructing a Combined Warehouse/Office Building for a Landscape and Handyman Service Company [Fuchs]
9. Discussion and Possible Action Regarding **Resolution 20-03-04** Rescinding Personal Property Taxes for Everbank Commercial Finance Located at W223 N603 Saratoga Drive (PWC E444) in the amount of \$100.72 [Tarczewski]
10. Discussion and Possible Action to Determine How Often the City of Pewaukee will Update their Financial Plan [Klein]
11. Discussion and Possible Action to Remove Patrick Johnson from the Fire Commission and Appoint Thomas Farley to Fill the Vacancy [Mayor Bierce]
12. Discussion Regarding the Current City-Wide Prohibition of Electronic Message Board Signs According to Section 17.0700 of the City Zoning Code [Fuchs]
13. 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.
14. Adjournment

Kelly Tarczewski
Clerk/Treasurer

February 28, 2020

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 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Approval of the Common Council Meeting Minutes Dated January 20, 2020

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

CC Minutes 1/20/2020

In attendance:

Mayor Steve Bierce, Aldermen B. Bergman, B. Dziwulski, R. Grosch, J. Kara and J. Wamser.
Alderman C. Brown was absent and excused.

Also in Attendance:

Attorney S. Riffle, Administrator S. Klein, Public Works Director M. Wagner, Civil Engineer R. Wirtz, Director of People and Culture K. Woldanski, City Assessor J. Siebers and Clerk/Treasurer K. Tarczewski.

1. **Call to Order and Pledge of Allegiance**

Mayor Bierce called the meeting to order at 7:01 p.m.

2. **Public Comment - None.**

3. **Consent Agenda**

- 3.1. Approval of Accounts Payable Listing Dated January 20, 2019
- 3.2. Approval of Common Council Meeting Minutes Dated December 2, 2019
- 3.3. Approval of Common Council Meeting Minutes Dated December 16, 2019
- 3.4. Approval of Bartender Licenses

Mayor Bierce removed Item #3.2 because the minutes were not completed.

A motion was made and seconded (J. Wamser, R. Grosch) to approve the remaining items on the consent agenda. Motion Passed: 5-For, 0-Against.

4. **PUBLIC HEARING** Regarding the Class B Liquor and Beer License Request of KNK Pewaukee, LLC Doing Business as Andrea's Red Rooster Located at N14 W22032 Watertown Road (PWC 0960-998-003) and Naming Natasha Koput as Agent

Ms. Tarczewski stated Dennis Barton is selling the business and she sees no issues with issuing the license to the applicants. Mayor Bierce opened the public hearing and no one indicated an interest in speaking so the public hearing was immediately closed.

Mr. Bergman commented on the amount of signs in front of the bar and stated they are not compliant with the City's sign ordinance. He said he'd like it to be a condition of the liquor license approval that their signs meet our ordinance and the excess signs should be removed. Attorney Riffle stated property compliance is a different issue.

Corry Koput was present and stated they would comply with the sign ordinance and have the extra signs removed. Mr. Klein stated everything but the main sign has to be removed. Mr. Koput said that wouldn't be an issue. He told the Council they will be looking into installing a digital board in the future.

A motion was made and seconded (B. Bergman, B. Dziwulski) to approve the liquor license of KNK Pewaukee, LLC conditioned upon the owners meeting the requirements of the sign ordinance or directing staff to apply the sign ordinance depending on what they find on site. Motion Passed: 5-For, 0-Against.

5. Discussion and Possible Action regarding Bridlewood Apartments
 - 5.1 Approve and Accept the Dedication of Easements for the Municipal Sanitary Sewer and Municipal Water Main Installed as Part of the Green Road Townhomes Phase 1 Development By Continental XIV Fund Limited Partnership.
 - 5.2 Approve **Resolution 20-01-01** Accepting the Public Improvements of the Green Road Townhomes Phase 1 Development.

Ms. Wagner stated the Bridlewood Apartments were sold. While doing their due diligence, it was determined that the City of Pewaukee never accepted the improvements as part of the developer's agreement from the 1990's. She said passing the resolution will accept the public improvements and concludes the developer's agreement. She said it was also determined that when the original certified survey map was recorded it did not include the easements for public utilities that run through the property. She said the water main does not run in a straight line; it has multiple angles throughout the property and the sewer easement is in the back of the property. She said the City attorney reviewed the language and a few tweaks were made this morning. It was noted that the legal descriptions were not correct and need to be revised. Ms. Wagner stated the owners have not responded to the changes yet.

A motion was made and seconded (J. Wamser, B. Dziwulski) to follow staffs' recommendations, contingent upon the Attorney's final review of documents and any comments made by the owners. Motion Passed: 5-For, 0-Against.

6. Discussion and Possible Action Regarding the Agreement Assigning Rights and Liabilities for the Completion of the Woodleaf Reserve Addition #2 Subdivision

Ms. Wagner stated Homes by Towne is selling the Woodleaf Reserve subdivision to two approved developers who are within the subdivision. It was noted they started their own partnership. She said this agreement will assign all the original developer's agreements to the new developers as well as the cash deposit and liabilities for the final improvements in phase III. She said it is currently within the one year warranty period. Ms. Wagner stated there is also a cash deposit for the construction of ponds for a future construction phase. Ms. Wagner stated additional language pertaining to the storm water maintenance agreement may be needed to assign the agreement to the new developers.

It was noted that the new entity will be called Woodleaf Investments LLC and would consist of Kaerek Builders and Korndoerfer Builders.

Mr. Bergman asked about the lift station and whether or not there were still outstanding credits on it. Ms. Wagner stated Town Homes built the Overhill lift station and it expired in September of last year, so that portion of the 10-10 agreement has been closed.

A motion was made and seconded (B. Dziwulski, R. Grosch) to approve the agreement contingent upon the City Attorney's final approval. Motion Passed: 5-For, 0-Against.

7. Discussion and Possible Action for Sharing the Municipal Sanitary Sewer Extension Cost with Westridge Builders for the Swan View Farms Development

Ms. Wagner stated Broken Hill subdivision basically surrounds the Swan View Farms development. She said there were issues in determining the best option for serving the new subdivision with sanitary sewer service. She said it was thought a portion could be served by the Overhill lift station and another

part of the subdivision could be served by the Broken Hill lift station. Ms. Wagner stated there is another area of the subdivision that is posing some issues related to topography and bedrock. She said they hired Ruekert and Mielke to do a study to determine the best way to service the area and they proposed two or three additional lift stations. Ms. Wagner stated the City is not in favor of this suggestion due to the amount of money it takes to maintain them. Staff reviewed the option further and felt one additional lift station would be the answer. She said another potential option would be to put in another wet well at Broken Hill with innovated hydraulics that would split the flow. She said the issue is the developer wants to get started right away and is not willing to wait. They want to have homes ready to sell by the end of the year. She said this was not enough time for the City to build a lift station.

Ms. Wagner stated they have talked to the developer and will allow them to build a temporary lift station that would serve approximately 85 homes they want to build. She said the temporary lift station could serve up to 200 homes. She stated there were other properties near that area that are also looking to develop.

Ms. Wagner stated the developer came to the City and said having the sanitary sewer go deeper into the bedrock would benefit the City and asked if the City was willing to cost share. She was told by the developer the cost estimate is an additional \$475,000 to go ten feet deeper. Ms. Wagner stated she questioned the numbers.

Mayor Bierce asked who would be paying for the permanent lift station. Ms. Wagner stated only the undeveloped parcels would eventually hook up to it and they would be paying for it through assessments. She said operation and maintenance rates would also pay for a portion of the lift station, but would have to be approved by the Public Service Commission (PSC).

Mr. Bergman asked for clarification on the following. He said what he heard was that the developer has submitted plans and the City approved his temporary lift station, which will serve this development by pumping to the Broken Hill lift station. He said the City is then looking at a regional plan to serve sewer in this region so we are asking the developer to lower the sewer by ten feet so we can put a future lift station in the Swan View Farms subdivision. Ms. Wagner stated that was correct.

Mr. Kara asked what the annual maintenance cost is for a lift station. Ms. Wagner talked about current issues with some of the pumps but did not give a dollar amount. Mr. Grosch asked what the estimated cost of the pumping station and interceptor was. She stated the cost of construction is approximately \$1 - \$1.5 million for the station itself. When adding the lines it could be a total of \$2 - \$2.5 million. She said in this case there will be wetland and environmental issues that will require working with the Department of Natural Resources (DNR). She said this sewer will also need final connection to the Victoria Station lift station, which will result in construction costs downstream for force mains and gravity.

Mr. Kara estimated the assessment amount in that area would be \$7,900 per property based on approximately 60 parcels. Mr. Klein stated that was no higher than in any other areas. He added there would be costs for the development of the lot and the sewer that goes into it.

A motion was made and seconded (B. Bergman, J. Wamser) to agree to cost share the additional depth of the sanitary sewer for the Swan View Farms development contingent upon staff review of the final construction bids and the agreement of terms to be drafted by the City

Attorney for execution by the developer and the City and the costs to be recovered by a special assessment of the benefited areas. Motion Passed: 5-For, 0-Against.

8. Discussion and Possible Action to Delay Construction and Re-Allocate 2020 Road Funds from Roundy's Industrial Park Phase 2 to Northview Road and Ishwane Court Sealing Projects

Ms. Wagner suggested delaying construction of Roundy's Industrial Park Phase 2 that consists of Roundy's Circle, Roundy's Drive and Paul Road, due to a water main relay project taking place in Paul Road. She said by delaying this project, the water main expenses could become part of the 2021 Public Service Commission (PSC) rate case as well as the Safe Drinking Water Loan rate case for the well treatment system on Northmound. She said this will eliminate the need to spend \$1 million of road construction funds this year.

Ms. Wagner stated she had other ideas on how to utilize the money to prolong the pavement of other roads. She suggested using sealants on Northview Road and Ishwane Court. She estimated the cost to be \$55,000 to \$75,000 and asked the Council to reallocate the funds.

A motion was made and seconded (B. Dziwulski, R. Grosch) to concur with staff recommendations and delay the Roundy's Industrial Park Phase 2 paving project to 2021 and reallocate \$75,000 of those funds for sealing projects on Northmound Road and Ishwane Court. Motion Passed: 5-For, 0-Against.

9. Discussion Regarding **Ordinance 20-01** (*First Reading*) Repealing Section 1.01(1)(d) Spending Cap and Referendum Requirements for Building and Public Works Projects

Mr. Klein stated this came to light while working on the facilities plan for the highway shop. He said the original ordinance in 2006 was created for political reasons after the recall election to placate the citizens' fears regarding government spending. He said other communities do not have ordinances like this. He asked Common Council to repeal it.

Mr. Klein said the cap amounts were never revised over the years and are outdated. Ms. Wagner concurred and said the ordinance has road projects capped at \$2 million dollars and construction costs have escalated over the years. She voiced her concerns regarding larger projects.

It was stated that Attorney Riffle would prepare the formal ordinance for the next meeting.

10. Discussion and Possible Action Regarding **Resolution 20-01-02** Rescinding Person Property Taxes Pursuant to Section 74.33(1)(d) for State Farm Mutual Auto Insurance Company (PWC S519) in the Amount of \$3.01

Ms. Tarczewski stated this business is no longer in the City of Pewaukee and shouldn't have received a personal property tax bill.

A motion was made and seconded (B. Bergman, R. Grosch) to approve Resolution 20-01-02 rescinding the personal property taxes for State Farm Mutual Auto Insurance Company in the amount of \$3.01. Motion Passed: 5-For, 0-Against.

11. Public Comment – None.
12. Closed Session – You are hereby notified that the Common Council and staff of the City of

Pewaukee will convene into closed session after all regular scheduled business has been concluded and upon motion duly made and seconded and acted upon by roll-call vote as required under §19.85(1)(a), Stats. The purpose of the closed session is for the following:

- §19.85(1)(c): Considering employment, promotion, compensation or performance evaluation data of any public employee over which the governmental body has jurisdiction or exercises responsibility specifically related to the City Assessor.

You are further notified that at the conclusion of the Closed Session, the Common Council may convene into open session pursuant to 19.85(2), Stats., for possible additional discussion and action concerning any matters discussed in closed session and for adjournment.

A motion was made and seconded (J. Kara, B. Dziwulski) to go into closed session at 8:29 p.m. Motion Passed via roll call vote: 5-For, 0-Against.

13. Adjournment

A motion was made and seconded (B. Dziwulski, B. Bergman) to adjourn the meeting at 9:01 p.m. from closed session. Motion Passed: 5-For, 0-Against.

Respectfully Submitted,

Kelly Tarczewski
Clerk/Treasurer

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 3.2.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Approval of Common Council Meeting Minutes Dated February 3, 2020

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

CC Minutes 2/3/2020

In attendance:

Mayor Steve Bierce, Aldermen B. Bergman, C. Brown, B. Dziwulski, R. Grosch and J. Kara, J. Wamser absent and excused.

Also in Attendance:

Attorney S. Riffle, Administrator S. Klein, DPW Director M. Wagner, Fire Chief K. Bierce, Director of People and Culture K. Woldanski, Lieutenant B. Ripplinger and Clerk/Treasurer K. Tarczewski.

1. **Call to Order and Pledge of Allegiance**

Mayor Bierce called the meeting to order at 7:00 p.m.

2. **Public Comment**

Jack Melvin (Oconomowoc) introduced himself, stating he was running for Circuit Court Judge to replace retiring Judge Dreyfus. He said he has been an attorney for the past 20 years and is currently a staff attorney for the State of Wisconsin doing workmen's compensation appeals. Mr. Melvin said he is also a member of the National Guard.

3. **Consent Agenda**

- 3.1. Approval of Common Council Meeting Minutes Dated November 18, 2019
- 3.2. Approval of the Common Council Meeting Minutes Dated January 20, 2020
- 3.3. Approval of Accounts Payable Listing Dated February 3, 2020
- 3.4. Approval of Bartenders Licenses
- 3.5. Approve **Ordinance 20-01 (Second Reading)** Repealing Section 1.01(1)(d) Spending Cap and Referendum Requirements for Building and Public Works Projects

Mayor Bierce removed Item 3.2 because they have not been completed. Ms. Brown asked that Items 3.1 and 3.5 be removed for discussion.

A motion was made and seconded (B. Dziwulski, R. Grosch) to approve the remaining items on the consent agenda. Motion Passed: 5-For, 0-Against.

3.1 **Approval of Common Council Meeting Minutes Dated November 18, 2019**

Ms. Brown stated she just needs to abstain from this item.

A motion was made and seconded (B. Dziwulski, J. Kara) to approve the Common Council meeting minutes dated November 18, 2019.

Motion Passed: 4-For, 0-Against, 1-Abstain (C. Brown)

3.5 **Approve **Ordinance 20-01** Repealing Section 1.01(1)(d) Spending Cap and Referendum Requirements for Building and Public Works Projects**

Ms. Brown noted a typographical error in the ordinance and asked for a quick recap on this item. Mr. Klein stated when he took over as Mayor after the recall election, he said there was a lot of controversy over a proposed \$10 million fire station. He said creating this ordinance and setting a limit of \$5 million was the assurance it that would not be built. He said it was created for purely political reasons and doesn't see a reason to keep it. Mr. Klein

noted construction costs have gone up and no updates to the ordinance were ever made. There was discussion that public hearings or information meetings could always be held if the Council desires it.

A motion was made and seconded (B. Dziwulski, R. Grosch) to approve Ordinance 20-01 repealing Section 1.01(1)(d) related to the spending cap and eliminating referendum requirements for building and public works projects.

Motion Passed: 5-For, 0-Against.

4. Presentation of the City of Pewaukee Financial Management Plan

Greg Johnson from Ehlers was present for this item. He said the process to update Pewaukee's financial management plan started approximately one year ago and he has been working with staff. He said the objective of this report is to benefit future budget development. Mr. Johnson indicated the report looks at long-term trends including the City's overall tax levy, tax rate and the levy limit implications. Mr. Johnson stated it combines the operational and capital needs into one financial model.

Mr. Johnson said the City's financial condition is healthy based on a strong fund balance, modest debt and conservative budgeting practices. Mr. Johnson stated the City has an Aa-1 credit rating with Moody's Investment Services.

Mr. Johnson mentioned in future years there may be budget pressures related to the levy limits.

5. Discussion and Possible Action Regarding Winter Parking Restrictions

Mayor Bierce stated he received some phone calls related to parking tickets recently issued. He asked Chief Bierce, Lieutenant Ripplinger and DPW Director Wagner to be present this evening to defend why the City has winter parking restrictions.

Ms. Wagner stated the streets were never designed to allow for parking. The streets are typically two lanes. She said to allow for parking an additional eight feet would be needed on each side. Ms. Wagner stated from a maintenance perspective, plows need to be able to get through and with cars parked on the roads, they can't. She said access is also needed for our residents and emergency vehicles. Mr. Klein stated it is incumbent during snow storms. The roads have to be clear so staff can get the plowing done. Ms. Wagner stated if there are chronic issues, the police are called to assist in clearing the roads.

Lieutenant Ripplinger said consistency is important but they try to apply discretion to this ordinance. He stated if there is no snow they will give out warnings. He said the ordinance allows for people to call and ask for permission to park on the street. He said it is with the understanding that permission may be rescinded based on weather conditions. Lieutenant Ripplinger stated they will continue to enforce the law until April 1st. Lieutenant Ripplinger said this is not a new ordinance, it was created back in the 1970s.

Chief Bierce indicated it was difficult to get through on the roads with the snow. He said the roads narrow with each snow fall. He stated the Fire Department needs to be able to respond quickly.

Nancy Loth (N41 W22715 Sunder Creek Drive) stated she's lived there for approximately nine years and this was the first ticket a family friend received. She said there was no snow on the ground, but a large snow fall was expected. She said other family friends parked in the same spot weeks prior and

didn't received any tickets. Ms. Loth stated her biggest concern was the lack of consistency and suggested more warnings be given.

Laura Dundon (W225 N2772 Fernwood Court) stated they received a ticket for first time as well. She said it was 5:30 p.m. in the afternoon and there was no snow. She said she never paid attention to the sign in the past. She asked if there was something that could be done, to perhaps allow parking on one side of the street. She said she thought no parking at all was extreme.

Mayor Bierce asked the Council members for their opinion. Lieutenant Ripplinger suggest using social media more. He said they post it on the City's website.

Ms. Brown stated she was under the impression that the winter "no parking" restriction was for overnight only.

Attorney Riffle stated the ordinance is clear and he would have no issues getting a conviction. Mr. Bergman suggested that possibly more discretion from the Sheriff's Deputies is needed. Attorney Riffle stated the Council can't expect the Deputies not to enforce the law. Mr. Bergman asked what the cost of the citation was. Mr. Klein stated it is a \$20 ticket. After a brief discussion, it was determined the ordinance was fine as it is but the Council would like to better educate the citizens by utilizing different avenues.

6. Discussion and Possible Action Regarding **Resolution 20-02-03** Authorizing Amendments to \$2,900,000 City of Pewaukee, Wisconsin Midwestern Disaster Area Revenue Bonds, Series 2012 (Building Service, Incorporated Project) Issued on September 21, 2012

Attorney Riffle recommended approval. He said this agreement was originally approved in 2012 and the petitioner has the opportunity to get a better interest rate through this amendment.

A motion was made and seconded (B. Bergman, B. Dziwulski) to approve Resolution 20-02-03.

Motion Passed: 5-For, 0-Against.

7. Closed Session - You are hereby notified that the Common Council and staff of the City of Pewaukee will convene into closed session after all regular scheduled business has been concluded and upon motion duly made and seconded and acted upon by roll-call vote as required under §19.85(1)(a), Stats. The purpose of the closed session is for the following:

- §19.85(1)(c): Considering employment, promotion, compensation or performance evaluation data of any public employee over which the governmental body has jurisdiction or exercises responsibility specifically related to the Chief Engineer.

You are further notified that at the conclusion of the Closed Session, the Common Council may convene into open session pursuant to §19.85(2), Stats., for possible additional discussion and action concerning any matters discussed in closed session and for adjournment.

A motion was made and seconded (B. Dziwulski, R. Grosch) to go into closed session at 8:20 p.m. Motion Passed via roll call vote: 5-For, 0-Against.

A motion was made and seconded (C. Brown, B. Dziwulski) to reconvene into open session.

Motion Passed: 5-For, 0-Against.

8. Discussion and Possible Action Regarding the Revised Reorganization of the Public Works

Department Including the Revision of the Engineer Positions to Chief Engineer - Utility and Chief Engineer - Streets & Development and Keeping the City Engineer as Part of the Director of Public Works Title.

A motion was made and seconded (B. Dziwulski, R. Grosch) to approve the revised organizational chart for the Department of Public Works Department. Motion Passed: 5-For, 0-Against.

9. Public Comment – None.

10. Adjournment

A motion was made and seconded (B. Dziwulski, B. Bergman) to adjourn the meeting at 8:48 p.m. Motion Passed: 5-For, 0-Against.

Respectfully Submitted,

Kelly Tarczewski
Clerk/Treasurer

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 3.3.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Approval of Accounts Payable Listing Dated March 2, 2020

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

A/P 3.2.2020 (2020)

A/P 3.2.2020 (2019)

ACCOUNTS PAYABLE	3/2/2020	TOTAL:	\$ 9,917,999.36
Vendor Name	Document Date	Document Amount	Transaction Description
1ST AYD	1/17/2020	\$845.31	FD TOWELS AND SUPPLIES
ADP SCREENING & SELECTION SERVICES	1/27/2020	\$84.00	HR EXAMS
ADP, LLC	1/17/2020	\$1,267.20	HR ADP HR
ADP, LLC	2/14/2020	\$1,277.10	HR WORKFORCE NOW
ADVANCE NAME PLATE & BADGE	1/22/2020	\$12.93	CT NAME PLATE
ADVANCED DISPOSAL	2/17/2020	\$4,637.93	HWY RECYCLE
AECOM	2/3/2020	\$6,915.51	ENG SWM PLAN REVIEW
AECOM	1/31/2020	\$19,129.88	ENG FLOOD ANALYSIS
AILCO EQUIPMENT FINANCE GROUP	2/1/2020	\$412.00	IT SCANNER
AIRGAS	2/4/2020	\$152.66	FD OXYGEN
AIRGAS	1/31/2020	\$83.13	FD OXYGEN
AIRGAS	1/31/2020	\$203.54	FD OXYGEN
AIRGAS	1/21/2020	\$439.50	HWY OXYGEN
ALESCI HOMES	1/28/2020	\$500.00	BLD OCC BND RFND 190333
ALL CITY COMMUNICATIONS INC.	2/1/2020	\$56.54	SW ANSWERING SERVICE
ALPHA OMEGA CLEANING, INC.	2/1/2020	\$142.00	P&R JANITORIAL SERVICES
AMERICAN LEAK DETECTION	1/1/2020	\$375.00	SW LINE LEAK DETECTION
AMERICAN PUBLIC WORKS ASSOC.	2/3/2020	\$760.00	HWY MEMBERSHIP
ANN KUICK	2/24/2020	\$59.50	CT VOTING
ANTHONY WALBY	2/4/2020	\$265.30	2019 PROPERTY TAX REFUND
ARAMARK	1/2/2020	\$72.72	HWY UNIFORMS
ARAMARK	1/9/2020	\$72.72	HWY UNIFORMS
ARAMARK	1/16/2020	\$72.72	HWY UNIFORMS
ARAMARK	1/30/2020	\$72.72	HWY UNIFORMS
ARAMARK	1/23/2020	\$72.72	HWY UNIFORMS
ARAMARK	2/13/2020	\$73.72	HWY UNIFORMS
ARAMARK	2/6/2020	\$72.72	HWY UNIFORMS
ARC DOCUMENT SOLUTIONS LLC	1/7/2020	\$18.00	ENG PLOT BOND
ARMAO, SHARON	2/24/2020	\$102.00	CT VOTING
ARROWHEAD SCHOOL DISTRICT	2/12/2020	\$6,345.60	FEB SETTLEMENT 2019 TAX ROLL
ASSESSMENT TECHNOLOGIES LLC	2/10/2020	\$130.00	ASR MARKET DRIVE SEMINAR
ASSESSMENT TECHNOLOGIES LLC	2/5/2020	\$93.75	IT IMPORT BUILDING PERMITS
ASSESSMENTS USA	1/31/2020	\$239.00	HR EXAMS
AT&T CAROL STREAM IL	2/1/2020	\$250.18	CT TELEPHONE
ATLAS OUTFITTERS	1/24/2020	\$42.50	FD TEAR AID TYPE A
BARBARA HOWDER	2/24/2020	\$61.63	CT VOTING
BARRIENTOS DESIGN & CONSULTING	1/31/2020	\$30,796.33	AD FACILITY ANALYSIS
BIELINSKI HOMES	1/24/2020	\$500.00	BLD OCC BND REFND 190769
BIELINSKI HOMES	1/24/2020	\$500.00	BLD OCC BND RFND 190827
BIELINSKI HOMES	1/22/2020	\$2,000.00	BLD ERSN BND RFND 181098
BIELINSKI HOMES	1/22/2020	\$2,000.00	BLD ERSN BND RFND 181077
BLANKENHEIM, KATHRYN	2/24/2020	\$127.50	CT VOTING
BLDG INSP ASSOC OF SE WI	2/6/2020	\$50.00	BLD MEMBERSHIP
BLDG INSP ASSOC OF SE WI	2/6/2020	\$50.00	BLD MEMBERSHIP
BONNIE FERA	2/24/2020	\$57.38	CT VOTING

BOUCHER CADILLAC OF WAUKESHA	1/1/2020	\$3,258.93	P&R REPAIR #75
BOUCHER CADILLAC OF WAUKESHA	1/21/2020	\$234.19	P&R REPAIRS #78
BOUCHER CADILLAC OF WAUKESHA	2/13/2020	\$612.02	P&R REPAIRS #76
BOUCHER CADILLAC OF WAUKESHA	1/21/2020	\$404.70	P&R REPAIR #75
BOUCHER CADILLAC OF WAUKESHA	2/14/2020	\$1,527.75	P&R TIRES #82
BRAKE & EQUIPMENT	2/12/2020	\$390.00	P&R PLOW EDGE #78
BREDAN MECHANICAL SYSTEMS	1/16/2020	\$1,258.50	IT HVAC INSPECTION
BREDAN MECHANICAL SYSTEMS	2/14/2020	\$781.34	IT CLEAN A/C DRAIN PAN
BREITBACH RASHID, PATTI	2/7/2020	\$180.00	P&R CHAIR YOGA 1
BRONWYN GLOJEK	2/24/2020	\$46.75	CT VOTING
BROOKFIELD, CITY OF	2/7/2020	\$294,033.15	SW 4TH QTR TREATMENT CHGS
BROOKFIELD, CITY OF	2/7/2020	\$22,232.28	SW 4TH QTR CHGS
BROOKS, RAY	2/24/2020	\$133.88	CT VOTING
BUMPER TO BUMPER HARTLAND	1/14/2020	\$136.06	BLD NEOFORM BLADE
BUMPER TO BUMPER HARTLAND	1/29/2020	\$18.46	P&R REPLACEMENT TAIL LIGHT
BUMPER TO BUMPER HARTLAND	1/29/2020	\$40.08	P&R AIR FILTER #82
BUMPER TO BUMPER HARTLAND	1/15/2020	\$22.39	CT FUEL SENSOR
BUMPER TO BUMPER HARTLAND	1/1/2020	\$152.19	SW REB CALP W/ HDWR
BUMPER TO BUMPER HARTLAND	1/1/2020	\$60.00	SW BRAKE CALIPER
BUNZELS MEAT AND CATERING	2/20/2020	\$100.00	HR SERVICE LUNCH
BURKE TRUCK & EQUIPMENT	1/2/2020	\$42,224.00	HWY PLOW TRUCK REPLACEMENT
BURKE TRUCK & EQUIPMENT	1/10/2020	\$2,490.90	HWY GEAR CASE PLANETARY
BURKE TRUCK & EQUIPMENT	2/6/2020	\$2,694.45	HWY PLOW BLADE
CARAULIA, CHERYL	2/24/2020	\$127.50	CT VOTING
CHARLENE LAPORTA	2/24/2020	\$175.00	CT VOTING
CHARLES ZILLMER LIVING TRUST	1/28/2020	\$63.98	2019 PROPERTY TAX REFUND
CINTAS CORP.	1/27/2020	\$44.21	P&R FIRST AID SUPPLIES
CINTAS CORP.	1/27/2020	\$73.02	P&R BATTERIES
CINTAS CORP.	1/27/2020	\$118.41	FD MATS
CINTAS CORP.	1/20/2020	\$61.14	FD MATS
CINTAS CORP.	1/27/2020	\$166.48	HWY FIRST AID SUPPLIES
CITY OF GREENFIELD	1/29/2020	\$125.00	P&R SUMMER STAFF TRAINING
CIVICPLUS	3/1/2020	\$6,169.98	IT ANNUAL HOSTING FEE
COEN, GERI	2/24/2020	\$46.75	CT VOTING
COMPASS MINERAL	1/15/2020	\$29,686.52	HWY BULK HWY COARSE
COMPASS MINERAL	1/7/2020	\$30,933.11	HWY BULK HWY COARSE
COMPASS MINERAL	1/20/2020	\$21,870.65	HWY BULK COARSE
COMPASS MINERAL	1/27/2020	\$29,659.11	HWY BULK COARSE
CONCENTRA, INC	1/17/2020	\$83.00	HR SAFETY
CONCENTRA, INC	1/22/2020	\$125.00	HR ANNUAL FEE
CONTINENTAL UTILITY SOLUTIONS, INC	2/18/2020	\$4,000.00	SW AMI INTERFACE BADGER BEACON
COREY OIL	2/5/2020	\$8,677.57	HWY FUEL
CORRY EIFERT	2/25/2020	\$477.40	BLD COURSE REIMBURSEMENT
CUMMINS SALES & SERVICE	12/27/2019	\$692.62	SW OIL FILTER
CUMMINS SALES & SERVICE	12/27/2019	\$602.76	SW OIL FILTER
CUMMINS SALES & SERVICE	10/31/2019	\$736.00	SW CHECK OUT GENERATOR
D.F. TOMASINI, INC	2/14/2020	\$3,951.75	SW REPAIR FRZN COPPER WTR SRV
D.F. TOMASINI, INC	2/14/2020	\$8,584.49	SW REPAIR COPPER SERVICE
D.F. TOMASINI, INC	2/14/2020	\$19,445.28	SW WATER MAIN REPAIR

DAN PLAUTZ CLEANING SERVICE	1/15/2020	\$2,790.00	HR CLEANER
DAN PLAUTZ CLEANING SERVICE	2/14/2020	\$2,790.00	HR CLEANING
DAN VERZAL	2/24/2020	\$123.25	CT VOTING
DEPT OF WORKFORCE DEVELOPMENT	1/16/2020	\$108.00	HR TRAINING
DEPT OF WORKFORCE DEVELOPMENT	2/1/2020	\$26.26	CT UNEMPLOYMENT
DIGGERS HOTLINE	2/3/2020	\$2,231.10	SW 1ST PREPAYMENT 2020 CHGS
DIVERSIFIED BENEFIT SERVICES	1/15/2020	\$418.75	CT JAN 2020 FSA
DIVERSIFIED BENEFIT SERVICES	2/5/2020	\$315.10	CT FEB 2020 HRA
DIVERSIFIED BENEFIT SERVICES	2/18/2020	\$274.60	CT FSA FEB 2020
DONALD NEUBERT	1/29/2020	\$92.74	2019 PROPERTY TAX REFUND
DONALD SCHNOOR JR	1/1/2020	\$190.09	2019 PROPERTY TAX REFUND
DORNER VALVES & AUTOMATION	2/12/2020	\$12.00	SW GASKET HOUSING
DWYER, CHARLIE	2/1/2020	\$136.85	BLD JANUARY MILEAGE REIMB
EICHENSEER, JAMES	2/24/2020	\$180.00	CT VOTING
ELECTION SYSTEMS & SOFTWARE	2/6/2020	\$6,280.00	CT SCANNER
ELLIOTT ACE HARDWARE	2/7/2020	\$26.99	P&R TOOL BOX DRAWER
ELLIOTT ACE HARDWARE	1/7/2020	\$58.77	HWY BOLTS
ELLIOTT ACE HARDWARE	1/5/2020	\$21.58	FD BASKET STRAINER
ELLIOTT ACE HARDWARE	1/17/2020	\$11.38	FD ID TAG
ELLIOTT ACE HARDWARE	1/3/2020	\$31.99	FD TARP
ELLIOTT ACE HARDWARE	1/21/2020	\$5.58	SW SOAP
ELLIOTT ACE HARDWARE	1/22/2020	\$2.39	SW LETTERS
ELLIOTT ACE HARDWARE	1/24/2020	\$17.98	SW GLOVES
ELLIOTT ACE HARDWARE	1/29/2020	\$6.99	SW MINI MAG LITE
ELLIOTT ACE HARDWARE	1/8/2020	\$13.72	SW FASTNERS
ELLIOTT ACE HARDWARE	1/14/2020	\$5.99	SW MURIATC ACID
ELLIOTT ACE HARDWARE	1/10/2020	\$26.98	SW CLOTH
ELLIOTT ACE HARDWARE	1/16/2020	\$5.99	SW HACKSAW
ELLIS MFG CO INC	1/16/2020	\$160.90	HWY BM GP1800
ELLIS, STUART	2/6/2020	\$150.00	CT GARBAGE REFUND
EQUAL RIGHT DIVISION	2/7/2020	\$7.50	P&R WORK PERMITS
ERIN MAGENNIS CONSULTING LLC	1/31/2020	\$30.00	P&R YOGA CLASS SUB
FERGUSON WATERWORKS	2/19/2020	\$96.30	SW VLV BX LID WTR DOM
FIRNROHR, MARY	1/27/2020	\$216.00	P&R TAI CHI SESSION 1
FREEMAN NEWSPAPERS, LLC.	2/13/2020	\$234.00	CT SUBSCRIPTION NEWSPAPER
FREYER, JANET	2/24/2020	\$110.50	CT VOTING
GARTON, JULI	2/25/2020	\$230.40	P&R MOSAIC EXP SESSION 1
GINNY LOCKMAN	2/24/2020	\$55.25	CT VOTING
GLEASON, ROBIN	2/24/2020	\$68.00	CT VOTING
GLENN GEITHMAN	1/13/2020	\$190.09	PROPERTY TAX REFUND
GRAINGER	1/9/2020	\$82.21	ENG MANHOLD LID LIFTER
GRAINGER	2/7/2020	\$6.25	SW FUSE HOLDER
GREGG MARTIN INSTRUMENTATION	2/7/2020	\$3,196.70	SW WELL MTR INST & PROG
GREGG MARTIN INSTRUMENTATION	2/6/2020	\$2,100.00	SW FLOW METERING CALIBRATION
GRENZ SERVICE CO. LLC	1/27/2020	\$348.75	FD REPLACE VALVE SWITCH
GUIDINGER, LOIS	2/24/2020	\$68.00	CT VOTING
HACH COMPANY	2/12/2020	\$41.78	SW ALKALINE CYNIDE RGT
HAMILTON SCHOOL DISTRICT	2/12/2020	\$177,196.22	FEB SETTLEMENT 2019 TAX ROLL
HANSEN, SHANE	1/16/2020	\$94.94	SW SAFETY SHOE REIMBURSEMENT

HAWKINS, INC.	2/11/2020	\$3,442.86	SW SODIUM SILICATE
HOGEN ELECTRIC	1/30/2020	\$248.40	SW SERVICE CALL
HUMPHREY SERVICE PARTS, INC	1/21/2020	\$4.21	SW OIL FILTER
HUMPHREY SERVICE PARTS, INC	2/5/2020	\$49.38	P&R OIL AND AIR FILTER
HUMPHREY SERVICE PARTS, INC	1/21/2020	\$74.62	HWY FUEL FILTER
HUMPHREY SERVICE PARTS, INC	1/30/2020	\$15.11	HWY OIL FILTER #2
HUMPHREY SERVICE PARTS, INC	1/28/2020	\$174.08	HWY FITTING
HUMPHREY SERVICE PARTS, INC	2/5/2020	\$146.02	HWY FUEL AND OIL FILTER #1&55
HUSCHKA, JUDY	2/24/2020	\$102.00	CT VOTING
HYDROCORP	1/31/2020	\$1,084.00	SW MCC 2 YR
IAFC MEMBERSHIP	2/1/2020	\$260.00	FD 2020-2021 MEMBERSHIP
INTERNATIONAL CODE COUNCIL	2/25/2020	\$135.00	BLD MEMBERSHIP
IS OUTFITTERS	1/27/2020	\$375.00	IT CONSULTATION FTP
IS OUTFITTERS	1/20/2020	\$187.50	IT CONSULTATION
ITERIS	1/9/2020	\$4,200.00	HWY CLEARPATH WEATER SERVICE
JCH WATER METER TESTING & REPAIR	2/11/2020	\$5,220.00	SW TEST AND REPAIR METERS
JEFFERSON FIRE & SAFETY, INC.	2/3/2020	\$9.20	FD SCOTT LATCH AND SPRING
JENSEN EQUIPMENT	1/13/2020	\$58.00	P&R BATTERY
JENSEN EQUIPMENT	1/29/2020	\$131.62	FD AIR AND FUEL FILTERS
JENSEN EQUIPMENT	1/3/2020	\$344.85	HWY APRON CHAPS
JENSEN EQUIPMENT	1/14/2020	\$57.90	HWY APRON CHAPS
JENSEN EQUIPMENT	1/7/2020	\$32.50	HWY SHARPEN SAW CHAIN
JENSEN EQUIPMENT	1/8/2020	\$156.08	FD GENERATOR FUEL
JENSEN EQUIPMENT	1/16/2020	\$141.95	HWY APRON CHAPS
JENSEN EQUIPMENT	1/22/2020	\$15.76	HWY CHAIN SPROCKET COVER
JENSEN EQUIPMENT	1/17/2020	\$265.80	HWY SAWFISH SMOKE
JENSEN EQUIPMENT	1/29/2020	\$132.93	HWY CHAINSAW MAINT
JENSEN EQUIPMENT	2/4/2020	\$80.82	HWY SPROCKET COVER
JERRY'S AUTOMOTIVE SERIVCE LLC	1/24/2020	\$116.48	FD CHECK BRAKES
JOHN P LOCHEN CO. INC	1/29/2020	\$63.91	P&R PLOW BOLT
JOHN'S DISPOSAL SERVICE	2/6/2020	\$14,814.92	ENG JAN LANDFILL CHARGES
JOHN'S DISPOSAL SERVICE	1/24/2020	\$50,442.19	ENG JAN CONTRACTED BILLING
JOHN'S DISPOSAL SERVICE	2/10/2020	\$1,137.01	ENG JAN LANDFILL INCREASE
JOURNAL SENTINEL, INC.	1/22/2020	\$541.70	CT NEWSPAPER SUBSCRIPTION
JUDY HYDE KRIEGER	2/24/2020	\$75.00	CT VOTING
JULIANNE PANCZENKO	2/6/2020	\$50.98	2019 PROPERTY TAX REFUND
JX TRUCK CENTER	1/2/2020	\$29.38	HWY CLAMP
JX TRUCK CENTER	1/2/2020	\$56.43	HWY CLAMP
JX TRUCK CENTER	2/5/2020	\$77.72	HWY LIGHTS
KAEREK HOMES INC	2/20/2020	\$500.00	BLD OCC BND RFND 181692
KAESTNER AUTO ELECTRIC CO.	1/15/2020	\$420.00	HWY TRITON WORKLIGHT
KAESTNER AUTO ELECTRIC CO.	1/13/2020	\$20.00	HWY TRACTOR LITE
KAINE, DAWN	2/24/2020	\$68.00	CT VOTING
KAREN ELLEFSON	2/24/2020	\$123.25	CT VOTING
KARPFINGER, BARBARA	2/24/2020	\$34.00	CT VOTING
KEITH ANTONIEWICZ	2/11/2020	\$206.37	2019 PROPERTY TAX REFUND
KEN KUICK	2/24/2020	\$59.50	CT VOTING
KEOUGH, TOM	2/24/2020	\$55.25	CT VOTING
KLINKA, GARY	2/25/2020	\$160.00	FD CONT EDU CREDITS

KM SPORTS	1/23/2020	\$16.00	FD CLOTHING
KM SPORTS	1/29/2020	\$97.74	FD CLOTHING
KMB ELECTRIC	1/22/2020	\$160.00	P&R INSTALL PUMP CONTROL BOX
KORNDORFER HOMES	2/7/2020	\$500.00	BLD OCC BND RFND 190539
KWIK TRIP	2/14/2020	\$3,821.35	FD FUEL
LAFARGE AGGREGATES ILLINOIS, INC.	1/13/2020	\$150.00	HWY SMALL DUMP
LAFARGE AGGREGATES ILLINOIS, INC.	1/13/2020	\$75.00	HWY SMALL DUMP
LAFARGE AGGREGATES ILLINOIS, INC.	1/16/2020	\$100.00	HWY SMALL DUMP
LAFARGE AGGREGATES ILLINOIS, INC.	1/23/2020	\$75.00	HWY SMALL DUMP
LAFARGE AGGREGATES ILLINOIS, INC.	2/6/2020	\$75.00	HWY SMALL DUMP
LAFARGE AGGREGATES ILLINOIS, INC.	2/6/2020	\$25.00	HWY SMALL DUMP
LANGE ENTERPRISES, INC	1/8/2020	\$2,384.73	HWY STREET SIGN
LARSON, CHERRIE	2/7/2020	\$192.00	P&R ART UNLEASHED SESSION 1
LAWN BOYZ CUSTOM CARE	1/26/2020	\$2,410.63	CT LAWN CARE PILGRIMS REST
LEVEL UP CONSTRUCTION	1/31/2020	\$136,800.00	AD CONTRACT AGREEMENT
LIFE-ASSIST INC	1/10/2020	\$30.40	FD PULL TIGHT SEAL
LIFE-ASSIST INC	1/20/2020	\$353.71	FD FIRST AID SUPPLIES
LIFE-ASSIST INC	1/15/2020	\$555.10	FD FIRST AID SUPPLIES
LIFE-ASSIST INC	1/21/2020	\$32.50	FD ADENOSINE
LIFE-ASSIST INC	1/28/2020	\$126.00	FD EPINEPHRINE
LIFE-ASSIST INC	1/27/2020	\$170.47	FD FIRST AID SUPPLIES
LIFE-ASSIST INC	2/3/2020	\$621.01	FD FIRST AID SUPPLIES
LINDA KORNFEHL	2/24/2020	\$57.38	CT VOTING
LITHO-CRAFT	2/6/2020	\$764.00	SW BILLING STMT PAPER
LITHO-CRAFT	1/31/2020	\$1,227.00	SW ENVELOPES
LUCHT, DONNA	2/24/2020	\$133.88	CT VOTING
LUCHT, ROBERT	2/24/2020	\$133.88	CT VOTING
LYNN LABLANC	2/24/2020	\$123.25	CT VOTING
MARY MISCHKER	1/24/2020	\$221.73	P&R REFUND RENTAL FACILITY
MENARDS	1/13/2020	\$9.95	SW DISTILLED WATER
MENARDS	1/16/2020	\$8.91	SW TRASH BAGS
MENARDS	1/27/2020	\$49.54	P&R TOOLS
MENARDS	1/28/2020	\$119.97	P&R 34W 30 PK
MENARDS	1/23/2020	\$16.99	P&R DEADBOLT SNGL CYL
MENARDS	1/16/2020	\$14.40	FD GREEN CLEANER
MENARDS	2/3/2020	\$8.36	P&R TOOLS
MENARDS	1/20/2020	\$30.00	CT LIGHTBULBS
MENARDS	1/2/2020	\$24.88	HWY AIR TOOL
MENARDS	1/13/2020	\$46.95	HWY MAILBOX POST
MENARDS	1/16/2020	\$51.63	HWY MAILBOX POST
MENARDS	1/16/2020	\$73.80	HWY POST SUPPORT
MENARDS	2/11/2020	\$47.96	P&R DOORSTOP
MENARDS	1/24/2020	\$14.99	HWY GLOVE
MENARDS	1/28/2020	\$19.98	HWY STPL SS1M
MENARDS	1/29/2020	\$29.97	HWY ZINC NOZZLE
MENARDS	1/30/2020	\$170.04	HWY BATTERIES
MENARDS	1/31/2020	\$31.64	HWY MULTI BIT DRVR
MENARDS	1/28/2020	\$25.99	HWY JUMBO STEEL
MENARDS	1/28/2020	\$23.84	HWY POST MOUNT LARGE

MENARDS	1/27/2020	\$62.47	HWY MOUNT JUMBO STEEL
MENARDS	1/31/2020	\$25.99	HWY POST MOUNT JUMBO STEEL
MENARDS	2/5/2020	\$59.94	HWY POST SUPPORT
MENARDS	2/12/2020	\$78.97	HWY MAILBOX POST
MENARDS	2/14/2020	\$44.97	HWY MAILBOX POST KIT
MENARDS	2/4/2020	\$39.09	HWY PLIERS
MID-AMERICAN RESEARCH CHEMICAL	1/23/2020	\$171.48	HWY DE-ICER SPRAY
MID-AMERICAN RESEARCH CHEMICAL	1/30/2020	\$102.00	HWY DE-ICER SPRAY
MILLER-BRADFORD & RISBERG, INC	1/29/2020	\$21.76	HWY CONNECTOR #59
MOLENDIA, JULIE	2/24/2020	\$123.25	CT VOTING
MOORE, DONNA	2/24/2020	\$68.00	CT VOTING
MOTION & CONTROL ENTERPRISES LLC	1/27/2020	\$75.38	HWY CRIMP HOSE
MOTION & CONTROL ENTERPRISES LLC	1/28/2020	\$127.17	HWY CRIMP HOSE
Municipal Law & Litigation Group S.C.	1/21/2020	\$759.00	CT LEGAL FEES
MUNICIPAL TREASURERS ASSOC. OF WI	2/13/2020	\$55.00	
NAPA	1/8/2020	\$70.90	SW ANTIFRZ AND GASKET
NAPA	1/8/2020	\$287.45	SW GENERATOR MAINT
NAPA	1/8/2020	\$113.08	SW GENERATOR MAINT
NAPA	1/9/2020	\$38.97	SW DEXCOOL
NATIONWIDE RETIREMENT SOLUTIONS	2/12/2020	\$1,335.09	CT RETIREMENT PD 1/31/20
NATIONWIDE RETIREMENT SOLUTIONS	2/12/2020	\$1,335.09	CT RETIREMENT PD 2/14/2020
NEITZEL, DON	2/24/2020	\$123.25	CT VOTING
NEW BROOK WINDOW CLEANING	1/27/2020	\$15.00	FD WINDOW CLEANING
NEW BROOK WINDOW CLEANING	1/27/2020	\$80.00	FD WINDOW CLEANING
NICHOLAS FUCHS	1/27/2020	\$760.00	BLD APA REIMBURSEMENT
NORTH CENTRAL UTILITY	1/21/2020	\$131.46	HWY LED SIGNAL LIGHTING
NORTHERN LAKE SERVICE, INC	1/29/2020	\$20.00	SW CHLORINE
NORTHERN LAKE SERVICE, INC	1/29/2020	\$20.00	SW CHLORINE
NORTHERN LAKE SERVICE, INC	1/29/2020	\$80.00	SW CHLORINE
NORTHERN LAKE SERVICE, INC	1/29/2020	\$60.00	SW CHLORINE
NORTHERN LAKE SERVICE, INC	1/29/2020	\$200.00	SW COLIFORM BACTERIA
NORTHERN LAKE SERVICE, INC	1/29/2020	\$80.00	SW CHLORINE
NORTHERN LAKE SERVICE, INC	1/29/2020	\$40.00	SW COLIFORM BACTERIA
NORTHERN LAKE SERVICE, INC	1/29/2020	\$60.00	SW CHLORINE
NOVAD MANAGEMENT CONSULTING	1/16/2020	\$6,707.32	2019 PROPERTY TAX REFUND
OFFICE COPYING EQUIPMENT, LTD	1/30/2020	\$110.57	BLD SHARP MX3070N CONTRACT
OFFICE COPYING EQUIPMENT, LTD	1/30/2020	\$12.42	CRT SHARP MX 3571 CONTRACT
OFFICE COPYING EQUIPMENT, LTD	1/30/2020	\$247.86	CT SHARP MX6240N CONTRACT
OFFICE COPYING EQUIPMENT, LTD	1/31/2020	\$146.36	FD SHARP MX3070N CONTRACT
OFFICE COPYING EQUIPMENT, LTD	1/30/2020	\$128.55	SW SHARP MX4070N CONTRACT
OFFICE DEPOT	1/21/2020	\$20.62	BLD OFFICE SUPPLIES
OFFICE DEPOT	1/23/2020	\$3.69	BLD OFFICE SUPPLIES
OFFICE DEPOT	1/3/2020	\$63.00	FD OFFICE SUPPLIES
OFFICE DEPOT	1/15/2020	\$118.59	FD OFFICE SUPPLIES
OFFICE DEPOT	1/15/2020	\$206.89	FD OFFICE SUPPLIES
OFFICE DEPOT	1/27/2020	\$15.90	BLD OFFICE SUPPLIES
OFFICE DEPOT	1/28/2020	\$34.23	BLD OFFICE SUPPLIES
OFFICE DEPOT	1/23/2020	\$39.18	P&R ENVELOPES & LABELS
OFFICE DEPOT	1/20/2020	\$69.32	CT OFFICE SUPPLIES

OFFICE DEPOT	1/14/2020	\$93.52	CT OFFICE SUPPLIES
OFFICE DEPOT	1/13/2020	\$22.31	HWY OFFICE SUPPLIES
OFFICE DEPOT	1/29/2020	\$20.45	FD OFFICE SUPPLIES
OFFICE DEPOT	1/28/2020	\$19.99	FD OFFICE SUPPLIES
OFFICE DEPOT	1/28/2020	\$64.62	FD OFFICE SUPPLIES
OFFICE DEPOT	2/8/2020	\$18.07	ENG OFFICE SUPPLIES
OFFICE DEPOT	2/10/2020	\$9.69	ENG OFFICE SUPPLIES
OFFICE DEPOT	2/10/2020	\$99.22	ENG OFFICE SUPPLIES
OFFICE DEPOT	2/6/2020	\$33.62	BLD OFFICE SUPPLIES
OFFICE DEPOT	2/5/2020	\$16.96	P&R OFFICE SUPPLIES
OFFICE DEPOT	2/6/2020	\$9.12	P&R OFFICE SUPPLIES
OFFICE DEPOT	2/11/2020	\$30.06	P&R OFFICE SUPPLIES
OFFICE DEPOT	2/12/2020	\$33.62	P&R OFFICE SUPPLIES
OFFICE DEPOT	2/18/2020	\$247.07	CT OFFICE SUPPLIES
OFFICE DEPOT	2/10/2020	\$54.09	CT OFFICE SUPPLIES
OFFICE DEPOT	2/18/2020	\$111.49	CT OFFICE SUPPLIES
OFFICE DEPOT	2/14/2020	\$47.99	CT OFFICE SUPPLIES
OFFICE DEPOT	2/18/2020	\$280.73	CT OFFICE SUPPLIES
OFFICE DEPOT	1/24/2020	\$133.98	HWY OFFICE SUPPLIES
ORLOVSKY, ARLINE	2/24/2020	\$68.00	CT VOTING
ORLOVSKY, RICHARD	2/24/2020	\$68.00	CT VOTING
PARTNER2LEARN, LLC	2/20/2020	\$450.00	HR EXAMS
PASCUCCI, GREG	2/24/2020	\$44.63	CT VOTING
PCP SOUTH LLC	1/29/2020	\$50.98	2019 PROPERTY TAX REFUND
PEGGY GEIGER	2/24/2020	\$68.00	CT VOTING
PEREIRA, BOB	2/24/2020	\$17.00	CT VOTING
PEWAUKEE PROFESSIONAL FIREFIGHTERS	2/13/2020	\$1,633.87	CT FEBRUARY UNION DUES
PEWAUKEE SCHOOL DISTRICT	2/12/2020	\$3,761,460.02	FEB SETTLEMENT 2019 TAX ROLL
PEWAUKEE, VILLAGE OF	2/11/2020	\$17,746.85	CT JAN 2020 FIRE EMS COLLECTIO
PEWAUKEE, VILLAGE OF	2/11/2020	\$6,493.70	CT PARK & REC JAN 2020
PEWAUKEE, VILLAGE OF	2/12/2020	\$69,501.00	CT FEB JOINT LIBRARY
PHYLLIS DECOSTE	2/24/2020	\$123.25	CT VOTING
PLUMBING INSPECTORS ASSOC OF SOUTH	2/6/2020	\$50.00	BLD PLUMBING INSP COURSE
POBLOCKI SIGN COMPANY	2/25/2020	\$380.00	BLD REFUND 20041-S
POMP'S TIRE SERVICE, INC.	1/23/2020	\$1,536.00	FD TIRE SERVICE
POMP'S TIRE SERVICE, INC.	1/1/2020	\$115.00	FD ROAD SERVICE
POMP'S TIRE SERVICE, INC.	2/25/2020	\$559.32	HWY TIRES
POSITIVELY PEWAUKEE	2/12/2020	\$36,344.00	CT MARKETING
POWER EQUIPMENT LEASING CO	1/21/2020	\$3,800.00	HWY VERSALIFT
PRAEGER, JANET	2/24/2020	\$46.75	CT VOTING
PREMIUM WATERS, INC	1/23/2020	\$46.49	P&R WATER
PREMIUM WATERS, INC	1/8/2020	\$53.25	CRT WATER
PREMIUM WATERS, INC	1/8/2020	\$53.25	HWY WATER
PREMIUM WATERS, INC	2/6/2020	\$29.49	P&R WATER
PREMIUM WATERS, INC	1/23/2020	\$86.25	HWY WATER
PREMIUM WATERS, INC	2/6/2020	\$53.25	HWY WATER
PROHEALTH CARE MEDICAL ASSOCIATES	2/3/2020	\$111.00	HR EXAMS
PROHEALTH CARE MEDICAL ASSOCIATES	2/3/2020	\$65.00	HR EXAMS
PROHEALTH PHARMACY WAUKESHA	2/3/2020	\$444.12	FD SUPPLIES

PROJECT ENTERTAINMENT DBA FUN FLICK!	1/24/2020	\$283.10	P&R DEPOSIT FOR MOVIE 9/18
PROJECT ENTERTAINMENT DBA FUN FLICK!	1/24/2020	\$283.10	P&R DEPOSIT MOVE IN PARK 7/10
PUBLIC SERVICE COMMISSION OF WI	2/12/2020	\$844.39	SW ADJ WATER RATES
R&R INSURANCE SERVICES	1/31/2020	\$24,735.00	CT WORKERS COMP
RICHMOND SCHOOL DISTRICT	2/12/2020	\$13,233.03	FEB SETTLEMENT 2019 TAX ROLL
ROGAHN, SHIRLEY	2/24/2020	\$123.25	CT VOTING
ROTROFF JEANSON & CO.	2/4/2020	\$461.00	CT 2019 VENDOR FORMS
RUNDLE-SPENCE	2/10/2020	\$41.23	SW GASKETS
SAFETY-KLEEN CORP	1/13/2020	\$200.00	HWY WASHER SERVICE SOLVENT
SAWALL, BRENDA	2/24/2020	\$123.25	CT VOTING
SCHOLTKA, JENNIFER	2/6/2020	\$330.00	P&R ZUMBA GOLD SESSION 1
SEAT OF THE PANTS PRODUCTIONS LLC	1/23/2020	\$247.00	P&R OLD FAMILY PHOTOS
SEVERSON, BILL	2/24/2020	\$85.00	CT VOTING
SHARON BERNER	2/24/2020	\$68.00	CT VOTING
SHAWNS DEER PICK UP	1/2/2020	\$260.00	HWY DEER PICKUP
SHERWIN INDUSTRIES	1/29/2020	\$689.94	HWY MANHOLE PROTECTION RINGS
SIEGERT, SUSAN	2/24/2020	\$57.38	CT VOTING
SIEGMAN, LAURA	2/24/2020	\$123.25	CT VOTING
SLESAR, PAULA	2/24/2020	\$127.50	CT VOTING
SOFT WATER, INC.	2/1/2020	\$30.00	FD WATER
SOFT WATER, INC.	2/1/2020	\$30.00	FD WATER
SORENS FORD	2/24/2020	\$17,369.00	BLD NEW VEHICLE
SORENS FORD	2/24/2020	\$18,633.00	BLD NEW VEHICLE
SORENS FORD	1/15/2020	\$2,240.36	HWY ENGINE REPAIR #1
STATE OF WI COURT FINES & ASSMTS	2/7/2020	\$7,097.66	CRT STATE COURT COSTS ASSESS
STREET SMART	1/21/2020	\$49,325.00	HWY SIGNAL SYSTEMS
STRYKER SALES CORPORATION	1/14/2020	\$421.67	FD BATTERY PACK
STRYKER SALES CORPORATION	1/2/2020	\$8,926.20	FD 3 YR MAINT. AGREEMENT
SUE MCCARRON	2/24/2020	\$123.25	CT VOTING
SUSAN SCHROEDER	2/24/2020	\$57.38	CT VOTING
TARGET SOLUTIONS LEARNING	2/10/2020	\$4,972.09	IT TARGET SOLUTIONS MEMBERSHIP
TD AMERITRADE TRUST COMPANY	2/12/2020	\$50.00	CT LOAN REPAYMENT PD 2/14/20
TD AMERITRADE TRUST COMPANY	2/12/2020	\$50.00	CT LOAN REPAYMENT PD 1/31/2020
TELEFLEX	1/9/2020	\$59.50	FD STABILIZER
THARMAN, JUDY	2/24/2020	\$123.25	CT VOTING
THOMAS, BRIAN	2/24/2020	\$59.50	CT VOTING
TOEPEL, SUE	2/24/2020	\$55.25	CT VOTING
TOM GEIGER	2/24/2020	\$68.00	CT VOTING
TRI-COUNTY WATERWORKS ASSOCIATION	2/25/2020	\$40.00	SW MEETING
TRIPLE CROWN PRODUCTS	1/23/2020	\$49.75	HWY CLOTHING
TRUCK & AUTO ELEGANCE	2/18/2020	\$190.19	SW WESTERN ADAPTER PIN
TRUSTWAY HOMES	1/21/2020	\$500.00	BLD OCC BND RFND 190856
UPS STORE	1/19/2020	\$10.32	FD GROUND COMMERCIAL
US TITLE & CLOSING SERVICES LLC	1/31/2020	\$100.46	2019 PROPERTY TAX REFUND
VERIZON	1/12/2020	\$96.67	FD TELEPHONE
VERIZON	1/12/2020	\$276.19	FD TELEPHONE
VERIZON	1/23/2020	\$22.14	FD TELEPHONE
VERIZON	2/1/2020	\$213.68	SW TELEPHONE
VESCIO, MARCEY	2/24/2020	\$127.50	CT VOTING

WAUKESHA CO PUBLIC WORKS ASSOC	2/13/2020	\$140.00	HWY 2020 MEMBER DUES
WAUKESHA CO SHERIFF'S DEPT	2/7/2020	\$60.00	CRT WARRANT FEE JAN 2020
WAUKESHA CO TECHNICAL COLLEGE	1/27/2020	\$468.00	FD FIRE CERT TESTING
WAUKESHA CO TECHNICAL COLLEGE	2/12/2020	\$257,008.02	FEB SETTLEMENT 2019 TAX ROLL
WAUKESHA CO TREASURER	2/4/2020	\$780.00	P&R LEARN TO SKATE
WAUKESHA CO TREASURER	2/7/2020	\$1,859.54	CRT COUNTY JAIL ASSESSMENTS
WAUKESHA CO TREASURER	1/13/2020	\$217,220.25	CT MUNICIPAL PATROL
WAUKESHA CO TREASURER	1/13/2020	\$217,220.25	CT MUNICIPAL PATROL
WAUKESHA CO TREASURER	2/12/2020	\$1,298,615.55	FEB SETTLEMENT 2019 TAX ROLL
WAUKESHA CO TREASURER	2/11/2020	\$52.35	CT JAN INMATE BILLING
WAUKESHA CO TREASURER	2/11/2020	\$217,220.25	CT MARCH MUNI PATROL
WAUKESHA PEWAUKEE CVB	2/1/2020	\$91,250.00	CT 1/4 OPERATING EXPENSES
WAUKESHA SCHOOL DISTRICT	2/12/2020	\$2,470,779.98	FEB SETTLEMENT 2019 TAX ROLL
WE ENERGIES	1/23/2020	\$20.56	P&R FLAG LIGHT
WE ENERGIES	1/23/2020	\$18.96	P&R ELECTRIC
WE ENERGIES	1/23/2020	\$24.96	P&R FIELD LIGHTING
WEIS, DARLENE	2/24/2020	\$123.25	CT VOTING
WELLS FARGO HOME MORTGAGE	1/21/2020	\$2,238.81	2019 PROPERTY TAX REFUND
WELLSPRING CONSTRUCTION GROUP	1/27/2020	\$3,725.00	AD CONSTRUCTION FEE
WHITLOW'S SECURITY SPECIALISTS	1/31/2020	\$48.30	P&R KEYS
WI DEPT OF JUSTICE-RECORDS CHECK	2/1/2020	\$27.00	HR EXAMS
WI DEPT SAFETY & PROFESSIONAL SERVICE	2/1/2020	\$40.00	BLD COMM BLD INSP APPLICATION
WI MUNICIPAL COURT CLERKS ASSOC.	2/7/2020	\$135.00	CRT 2020 CLERK ASSOC DUES
WI MUNICIPAL JUDGES ASSOC	2/7/2020	\$100.00	CRT JUDGES ASSOC. DUES
WI SUPREME COURT	2/7/2020	\$700.00	CRT CONTINUING JUDICIAL EDU
WIMMER, LISA	2/24/2020	\$51.00	CT VOTING
WIRTZ, RICHARD	2/25/2020	\$183.26	ENG TRAVEL EXP REIMBURSEMENT
WISCONSIN CENTRAL	1/31/2020	\$300.00	SW PIPELINE
WISCONSIN LEGAL BLANK	1/14/2020	\$259.00	ASR ENVELOPES
WISCONSIN LEGAL BLANK	2/4/2020	\$557.00	P&R ENVELOPES
WISCONSIN LEGAL BLANK	1/1/2020	\$2,469.00	P&R PROGRAM GUIDES
WOLF CONSTRUCTION COMPANY	1/28/2020	\$664.40	SW COLD MIX
WOLF CONSTRUCTION COMPANY	1/27/2020	\$197.12	SW COLD MIX
WROBLEWSKI, SUE	2/24/2020	\$125.38	CT VOTING
XEROX CORPORATION	2/1/2020	\$243.67	SW COPIER LEASE AND PRINTS
XEROX CORPORATION	1/1/2020	\$1,094.33	SW JAN LEASE & USAGE
YEKO, JANE	2/24/2020	\$123.25	CT VOTING
ZIEGERT, JIM	2/24/2020	\$102.00	CT VOTING
ZIETARA-NOWAKOWSKI, NINA	2/24/2020	\$125.38	CT VOTING

ACCOUNTS PAYABLE	3/2/2020	TOTAL:	\$ 107,088.60
Vendor Name	Document Date	Document Amount	Transaction Description
ADVANCED DISPOSAL	12/31/2019	\$4,216.71	HWY RECYCLE
ARAMARK	12/26/2019	\$76.22	HWY UNIFORMS
AVANT GRAPHICS	12/30/2019	\$1,235.00	CT TSHIRTS BADGES AND BUDDIES
CHARLES CHAMBLISS JR	12/31/2019	\$65.00	CT R&D FEE REIMBURSEMENT
CLARKDIETZ	1/8/2020	\$1,626.00	AD NEEDS ASSESSMENT
COREY OIL	1/7/2020	\$3,099.52	HWY FUEL
GRAINGER	12/23/2019	\$46.92	HWY SAFETY GLASSES
HANSON, ERIK	12/31/2019	\$65.00	CT R&D FEE REIMBURSEMENT
HUMPHREY SERVICE PARTS, INC	12/24/2019	\$138.85	HWY WHEEL DOLLY
JENSEN EQUIPMENT	12/30/2019	\$299.95	HWY CHAINS
JX TRUCK CENTER	12/27/2019	\$2,604.57	HWY PETERBILT SERVICE
LINCOLN CONTRACTORS	12/30/2019	\$350.86	HWY SHOVELS AND BLADES
MENARDS	12/23/2019	\$84.99	HWY CERAMIC HEATER
Municipal Law & Litigation Group S.C.	1/21/2020	\$3,870.95	CT LEGAL FEES
PEWAUKEE CHAMBER OF COMMERCE	12/17/2019	\$7,500.00	CT GENERAL MARKETING
PEWAUKEE, VILLAGE OF	12/31/2019	\$26,019.52	CT 2019 P&R TRUE UP
POWER EQUIPMENT LEASING CO	12/31/2019	\$3,800.00	HWY VERSALIFT
PREMIUM WATERS, INC	12/20/2019	\$53.25	HWY WATER
RUEKERT & MIELKE, INC.	1/15/2020	\$2,627.56	SWM SURVEY AND DESIGN
RUEKERT & MIELKE, INC.	1/15/2020	\$4,563.10	SWM DESIGN AND SURVEY
RUEKERT & MIELKE, INC.	1/15/2020	\$591.75	SWM CONSTRUCTION SERVICES
RUEKERT & MIELKE, INC.	1/15/2020	\$1,272.46	SWM CONSTRUCTION REVIEW
RUEKERT & MIELKE, INC.	1/15/2020	\$3,418.45	ENG DESIGN
RUEKERT & MIELKE, INC.	1/15/2020	\$47.50	ENG DESIGN 26-10046
RUEKERT & MIELKE, INC.	1/15/2020	\$1,178.00	ENG SWAN VIEW FLOW ANALYSIS
RUEKERT & MIELKE, INC.	1/15/2020	\$8,049.75	ENG EROSION CONTROL REVIEW
RUEKERT & MIELKE, INC.	1/15/2020	\$429.83	ENG EROSION CONTROL REVIEW
RUEKERT & MIELKE, INC.	1/15/2020	\$459.92	ENG EROSION CONTROL REVIEW
RUEKERT & MIELKE, INC.	1/15/2020	\$752.73	SWM EROSION CONTROL REVIEW
RUEKERT & MIELKE, INC.	1/15/2020	\$478.67	SWM EROSION CONTROL
RUEKERT & MIELKE, INC.	1/15/2020	\$460.23	SWM EROSION CONTROL
SERWE IMPLEMENT MUNICIPAL SALES	8/15/2019	\$235.25	HWY FLAIL AND BOLTS
SHAWNS DEER PICK UP	1/2/2020	\$416.00	HWY DEER PICKUP
TRIPLE CROWN PRODUCTS	12/20/2019	\$76.94	HWY CONTRACTOR PARKA
TRIPLE CROWN PRODUCTS	12/20/2019	\$554.70	HWY CLOTHING
WAUKESHA CO TREASURER	1/30/2020	\$4,048.75	CT DOG LICENSES
WAUKESHA CO TREASURER	12/31/2019	\$9,928.77	CT 4TH QTR POLICE SERVICES
WAUKESHA CO TREASURER	12/31/2019	\$828.00	HWY BRINE SALES NOV 2019
WAUKESHA CO TREASURER	12/31/2019	\$1,611.60	ENG 2019 HHW PROGRAM
WAUKESHA CO TREASURER	12/31/2019	\$9,851.33	ENG COMPOSTING PROGRAM
WI DEPT OF JUSTICE-RECORDS CHECK	12/31/2019	\$54.00	CT RECORDS CHECK

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 3.4.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Approval of Bartender Licenses

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

3/2/2020 Partender List

<u>Individual Name</u>	<u>Establishment Name</u>	<u>Type</u>
Christopherson, Anna C	Five O’Clock Club	New
Engle, Jamie F	Machine Shed	New
Gaylord, Amy J	Machine Shed	New

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 3.5.**

DATE: March 2, 2020

DEPARTMENT: Public Works

PROVIDED BY: Magdelene Wagner

SUBJECT:

Establish the 2020 Paving Assessment Cap in the Amount of \$2,684

BACKGROUND:

The City has a long standing policy to recover the costs to pave streets through special assessments to the properties that abut the street paving. The City also has a policy of limiting the maximum amount of the special assessment for residential properties; non-residential properties are required to pay the full share of the special assessment. Each year the residential paving assessment is adjusted for inflation based on a construction cost index published in the magazine *American City and County*. As such, it is necessary to adjust the cap according to our policy, and we would recommend the 2020 rate at \$2,684.00, calculated as follows:

2007 rate	\$1,865	(3.6% increase)
2008 rate	\$1,906	(2.2% increase)
2009 rate	\$2,026	(6.3% increase)
2010 rate	\$2,014	(0.6% decrease)
2011 rate	\$2,099	(4.2% increase)
2012 rate	\$2,175	(3.6% increase)
2013 rate	\$2,225	(2.3% increase)
2014 rate	\$2,284	(2.64% increase)
2015 rate	\$2,349	(2.86% increase)
2016 rate	\$2,387	(1.6% increase)
2017 rate	\$2,481	(3.922% increase)
2018 rate	\$2,562	(3.254% increase)
2019 rate	\$2,639	(2.998% increase)
2020 rate	\$2,684	(1.69% increase)

FINANCIAL IMPACT:

Increase the existing paving cap by \$45.

RECOMMENDED MOTION:

Approve the 2020 Paving Assessment Rate of \$2,684 in accordance with City Resolution 06-02-1.

**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



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 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.

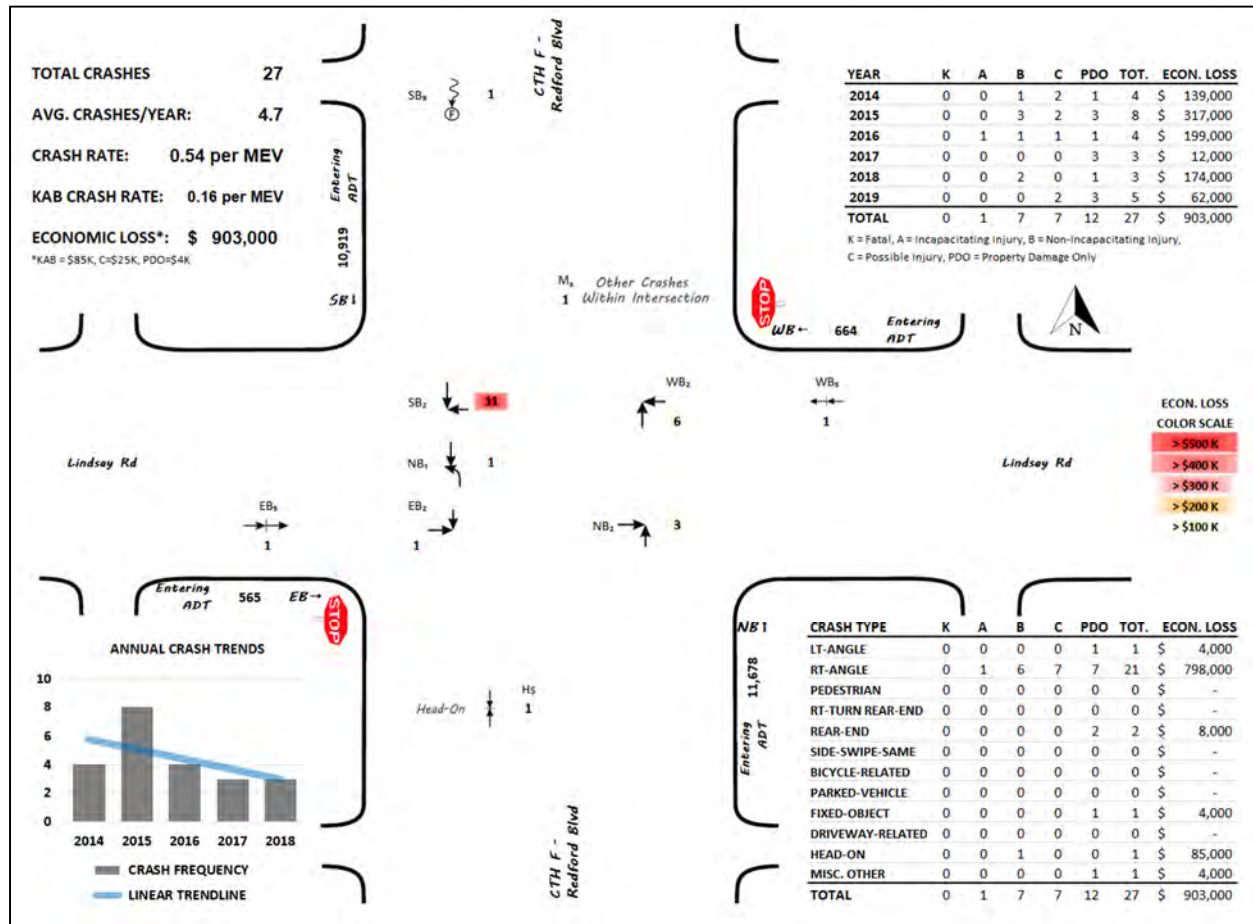
B1. Crash Analysis

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



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.

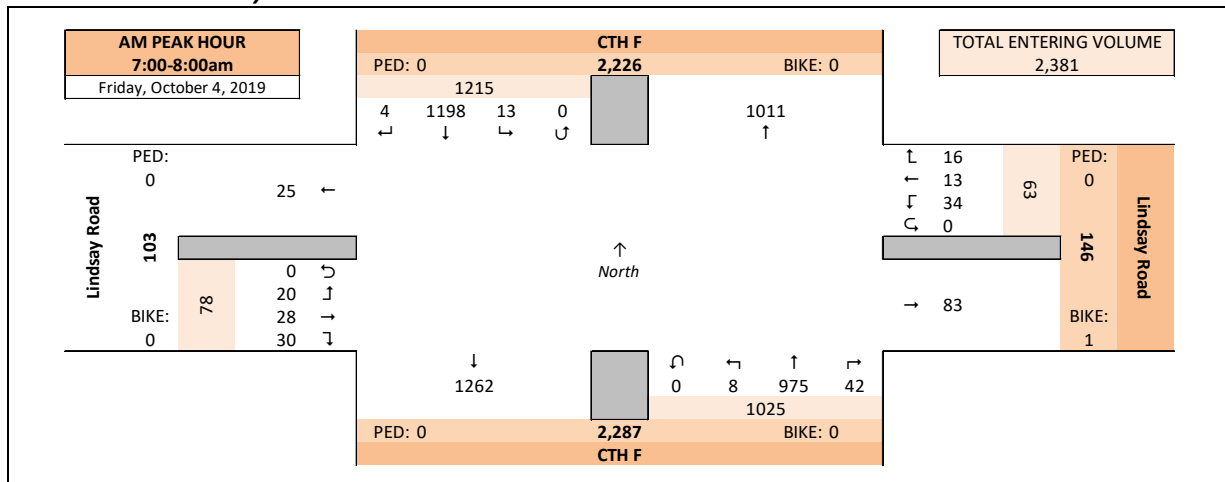
LOS F represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized intersections, average delays exceed 50 seconds.

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

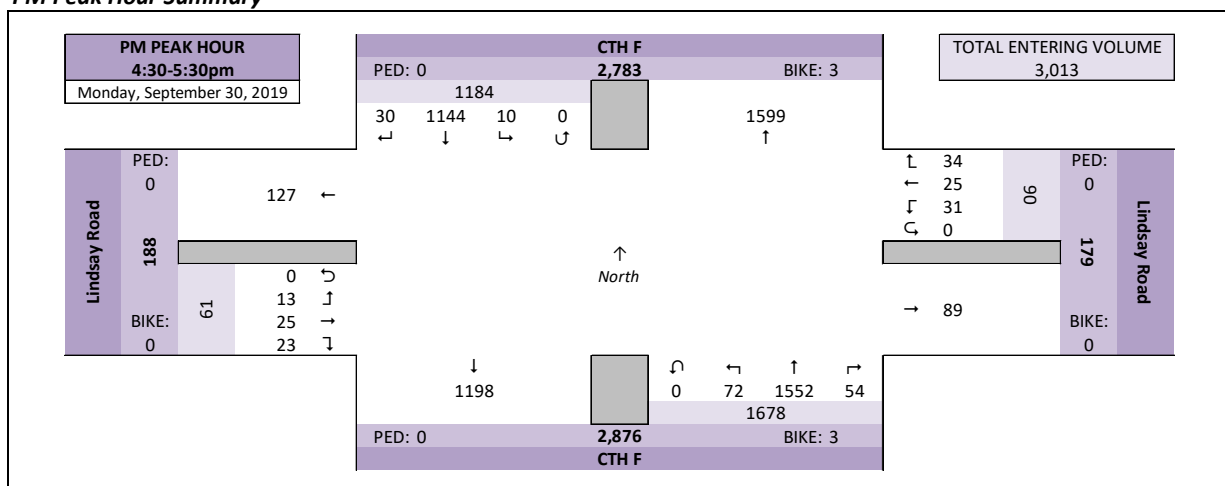


Table B3 shows the results of the Year 2019 existing weekday morning and weekday evening peak hour operational analysis at the study area intersection. The existing intersection geometry and traffic volumes were used for the analysis.

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
<i>Existing Geometrics with Two-Way Stop Control</i>	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
<i>Existing Geometrics with Traffic Signal Control</i>	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. Convenient access from side-street.	
Operations	Acceptable level-of-service traffic operations. Vastly improved level-of-service on side-street approaches.	Reduced level-of-service for northbound and southbound traffic. 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. 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 the WisDOT SE Region safety engineer.

APPENDIX A

CRASH DIAGRAM AND STATISTICS

Intersection Collision Diagram



Location: CTH F & Lindsay Rd
Municipality: Pewaukee
County: Waukesha
Traffic Control: Minor Street Stop

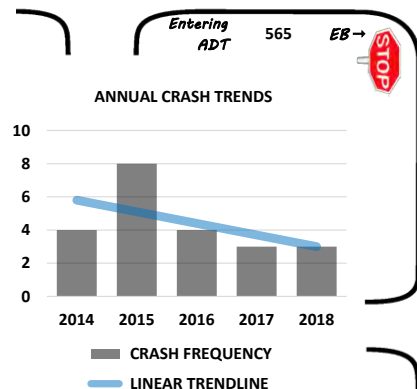
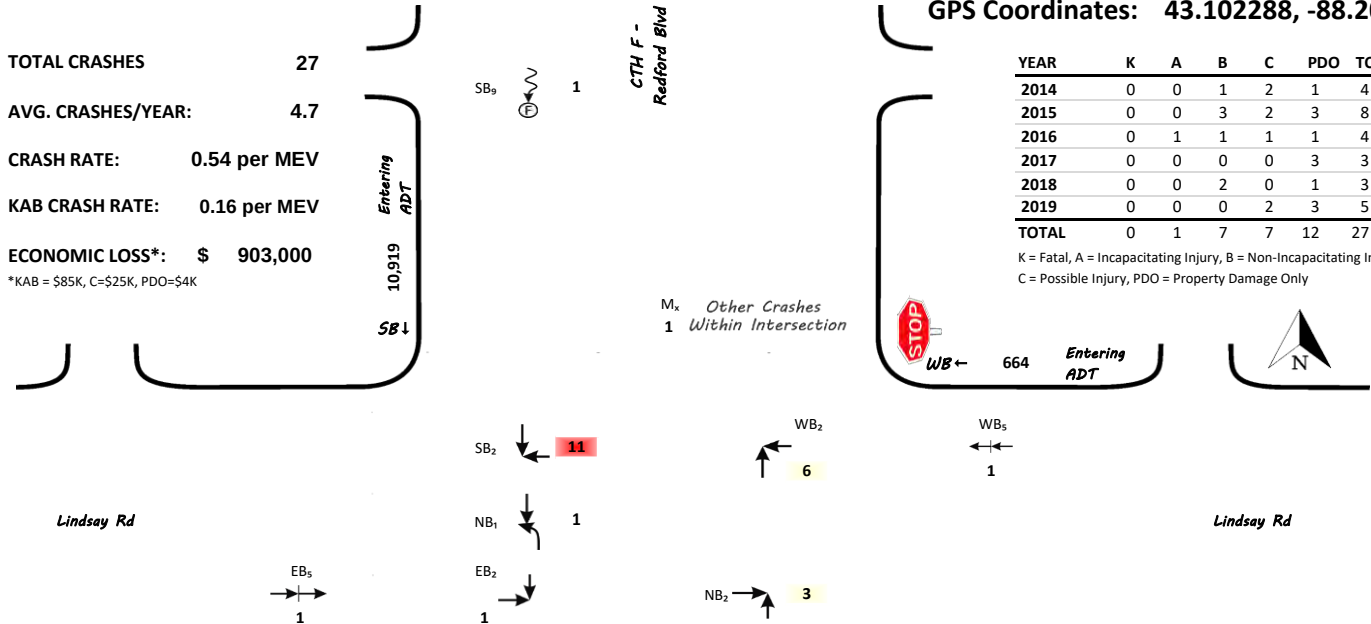
From: 1/1/2014 5 Years
To: 9/17/2019 8 Months
AADT: 23,826
Area Type: Urban
GPS Coordinates: 43.102288, -88.208759

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



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	

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	

TBD = verification from crash report needed for direction

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

Corresponds to Collision Diagram

[illegible]

APPENDIX B

EXISTING TRAFFIC COUNTS

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		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

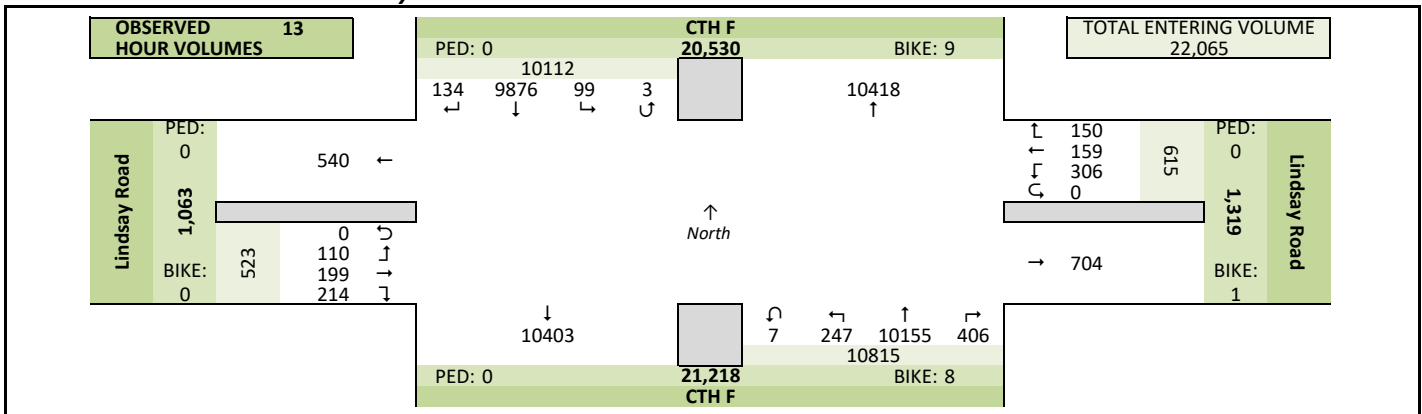
Site Information

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	

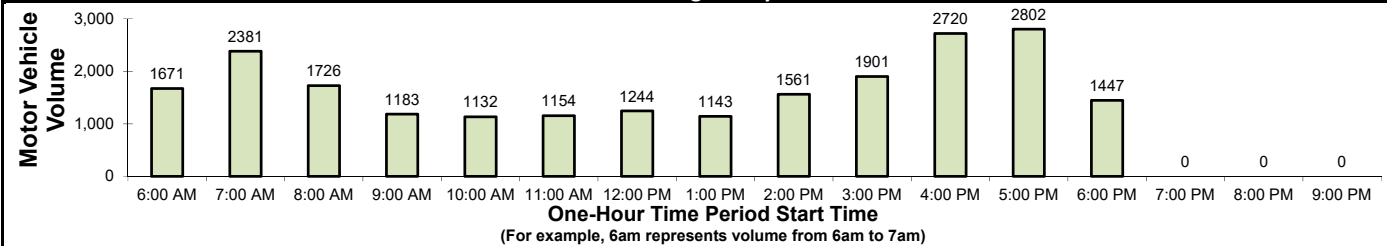
Count Information

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				

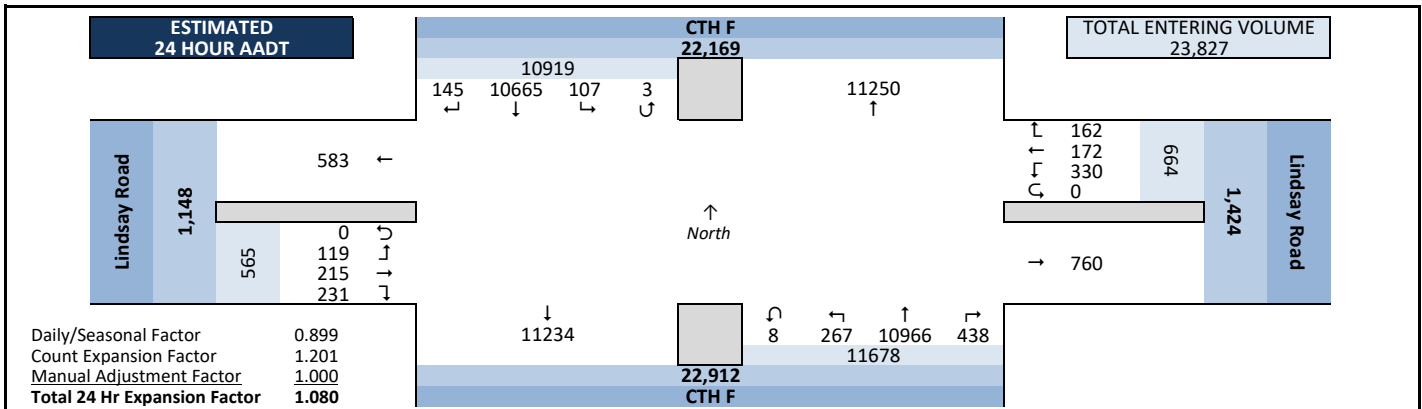
Observed 13 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



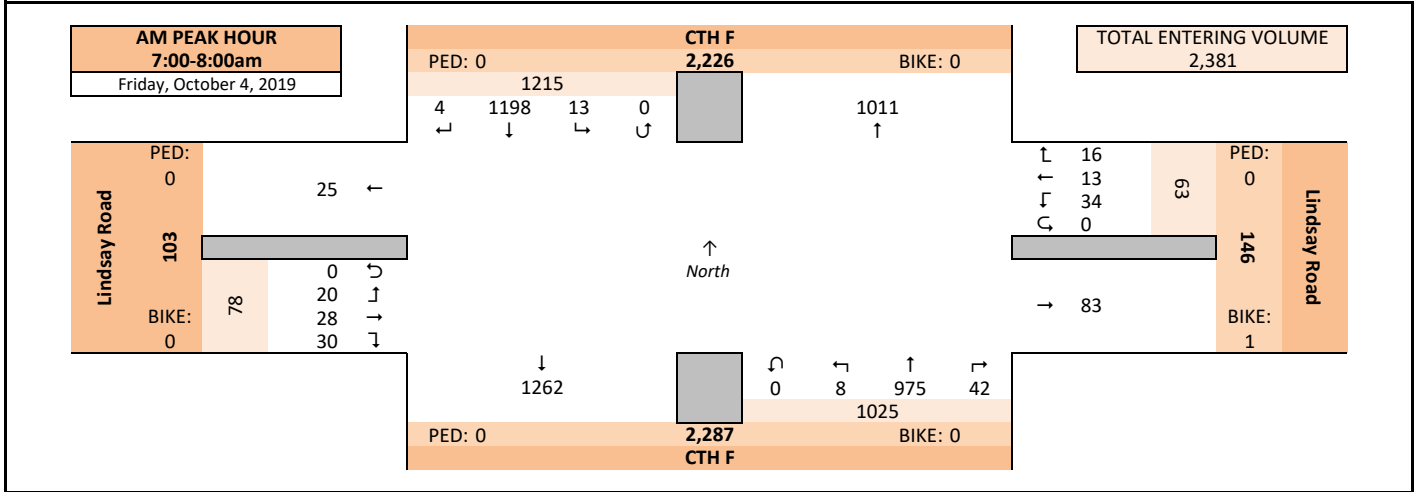
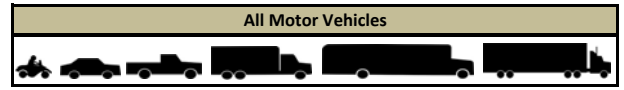
Intersection Traffic Volume Report

Peak Hour Volume Graphical Summary

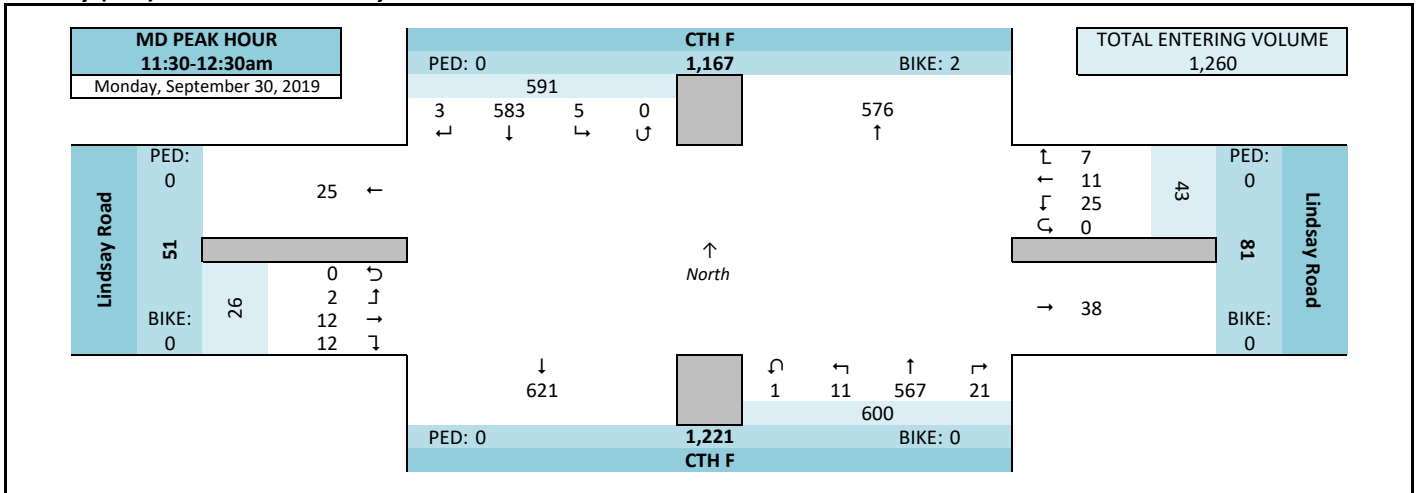
Count Basics		Page 2 of 13	
Start Date:	Monday, September 30, 2019	Weekday	Schools in Session
Total Number of Hours Counted:	13	Non-Holiday	No Special Events

CTH F and Lindsay Road

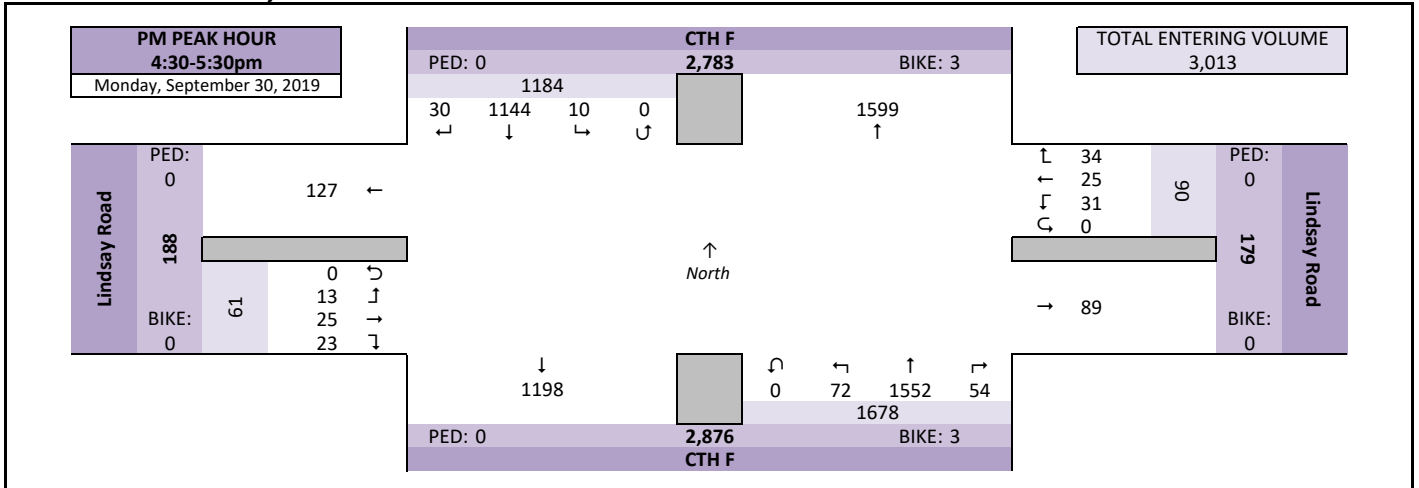
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



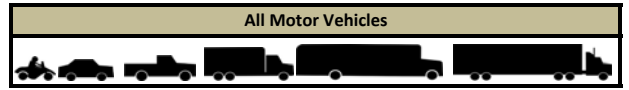
Intersection Traffic Volume Report

Peak Hour Volume Summary

CTH F and Lindsay Road

Peak Hour Volumes, Truck Percentages, and PHFs

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



Friday, October 4, 2019		From North					From East					From South					From West					
		CTH F					Lindsay Road					CTH F					Lindsay Road					
AM Peak Hour	AM Peak Hour																					
	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
	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					Totals
Midday (MD) Peak Hour	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	
	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	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
	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 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
15-Minute Start Time		CTH F			Lindsay Road			CTH F			Lindsay Road			
		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	
	7:15 AM	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	1	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	1	1	0	0	0	0	0	1	
MD	11:30 AM	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	2	
	12:00 PM	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	
	Total	0	2	2	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

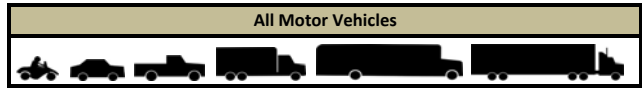
Intersection Traffic Volume Report

Hourly Volume Summary - Motor Vehicle Data

CTH F and Lindsay Road

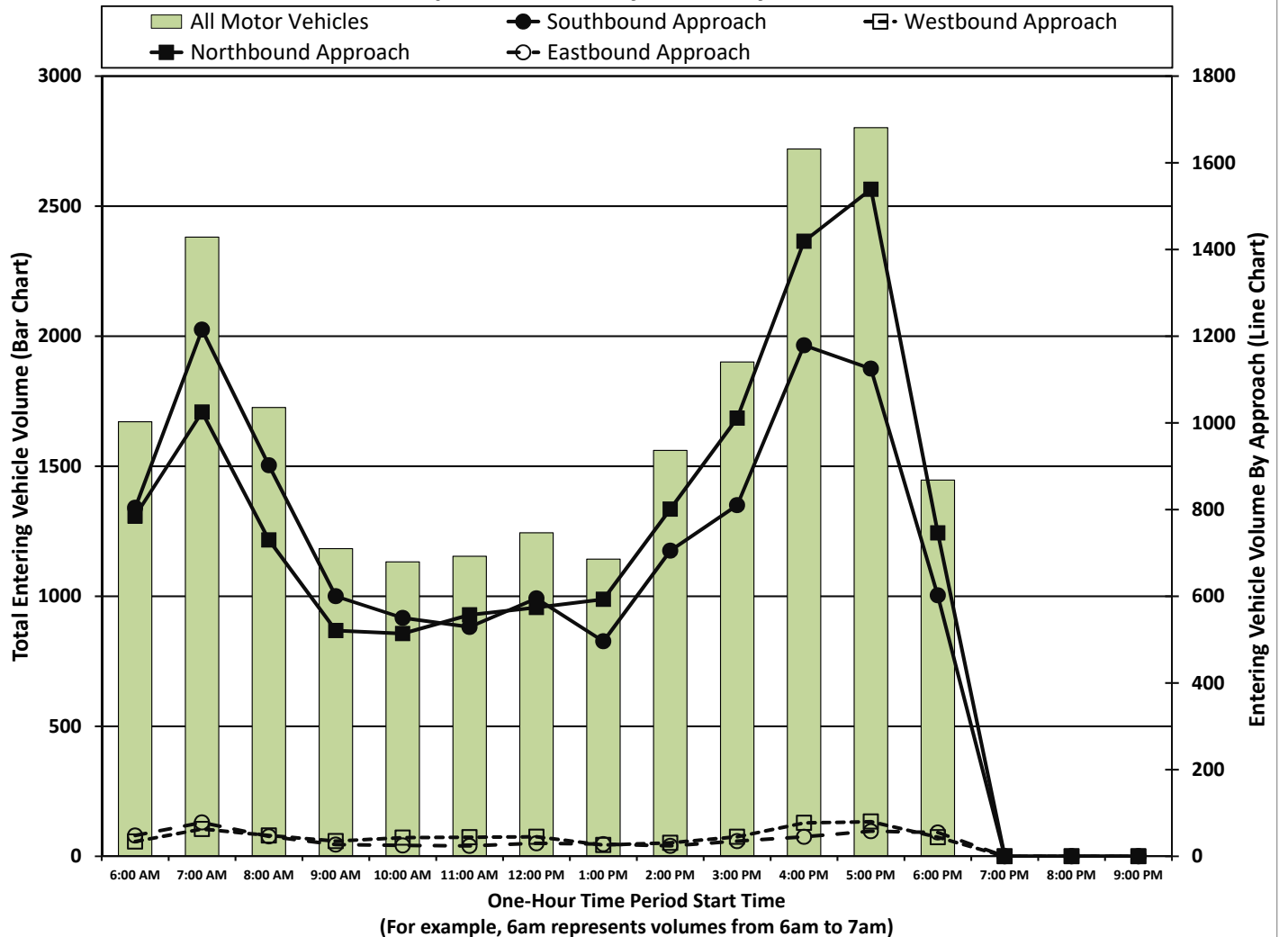
One-Hour Motor Vehicle Data

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



One-Hour Time Period Start Time	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals		
	CTH F					Lindsay Road					CTH F					Lindsay Road								
	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



15-Minute Motor Vehicle Data

All Motor Vehicles

15-Minute Motor Vehicle Data

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume	PHF
	CTH F					Lindsay Road					CTH F					Lindsay Road						
	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

CTH F and Lindsay Road

Automobiles (Cars, Light Trucks, & Motorcycles)		
		

15-Minute Automobile Data

15-Minute Time Period	Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
		CTH F					Lindsay Road					CTH F					Lindsay Road								
		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		
	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		
Midday Peak Period	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

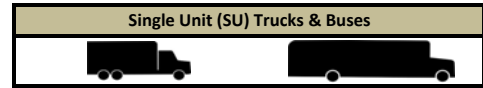
Hourly Time Period	Start Time	From North				From East				From South	
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Intersection Traffic Volume Report

15-Minute Single Unit (SU) Truck & Bus Data

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

CTH F and Lindsay Road



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
		CTH F					Lindsay Road					CTH F					Lindsay Road								
		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		
Midday Peak Period	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		
	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		
PM Peak Period	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		
	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

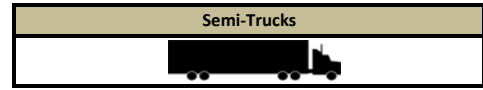
Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	CTH F					Lindsay Road					CTH F					Lindsay Road					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	85	1	0	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

CTH F and Lindsay Road



15-Minute Semi-Truck Data

15-Minute Time Period	Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
		CTH F					Lindsay Road					CTH F					Lindsay Road								
		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

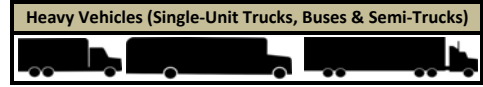
Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume	
	CTH F					Lindsay Road					CTH F					Lindsay Road						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	0	25	0	0	25	0	0	1	0	1	0	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

CTH F and Lindsay Road



15-Minute Heavy Vehicle Data

15-Minute Time Period	Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
		CTH F					Lindsay Road					CTH F					Lindsay Road								
		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		
Midday Peak Period	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		
	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		
PM Peak Period	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		
	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					From East					From South					From West					Total Hourly Volume
	CTH F					Lindsay Road					CTH F					Lindsay Road					
	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

15-Minute Heavy Vehicle Percentages

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)	
%	  

15-Minute Heavy Vehicle Percentages

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Hourly Heavy Vehicle Percentage
		CTH F					Lindsay Road					CTH F					Lindsay Road					
		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	0.0	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	8.0
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	19.0
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	3.0

Intersection Traffic Volume Report

15-Minute Pedestrian and Bicyclist Data

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

CTH F and Lindsay Road



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time	Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum	
	North Approach			East Approach			South Approach			West Approach					
	CTH F			Lindsay Road			CTH F			Lindsay Road					
	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	
	6:15 AM	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	
	6:45 AM	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	1	
	7:15 AM	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	1	0	
	7:45 AM	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	
	8:15 AM	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	1	
	8:45 AM	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	1	
	9:15 AM	0	1	1	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	
	9:45 AM	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	1
		10:15 AM	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	2
		10:45 AM	0	1	1	0	0	0	0	0	0	0	0	1	2
11:00 AM		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	2	
11:30 AM		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	2	2	
12:00 PM		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	1	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	
	12:45 PM	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	1	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	
	1:30 PM	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	1	
	PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1
		2:15 PM	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
		2:45 PM	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	
3:15 PM		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	1	
3:45 PM		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	6	
4:15 PM		0	0	0	0	0	0	1	1	0	0	0	1	7	
	4:30 PM	0	1	1	0	0	0	2	2	0	0	0	3	6	
	4:45 PM	0	1	1	0	0	0	1	1	0	0	0	2	3	
	5:00 PM	0	1	1	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	2	
	5:30 PM	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	2	2	
	6:00 PM	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	
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					
Elementary 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

Lanes, Volumes, Timings
3: CTH F & Lindsay Road

2019 Exist TWSC - AM.syn
10/09/2019

	↗	→	↘	↖	←	↙	↘	↖	↗	↘	↖	↗
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	0	0	250	225	250	225	225	225
Storage Lanes	0	0	0	0	0	0	1	1	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

HCM 6th TWSC
3: CTH F & Lindsay Road

2019 Exist TWSC - AM.syn
10/09/2019

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
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

Lanes, Volumes, Timings
3: CTH F & Lindsay Road

2019 Exist TWSC - PM.syn
10/09/2019

	↗	→	↘	↖	←	↙	↘	↖	↗	↘	↖	↗
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	0	0	250	225	250	225	225	225
Storage Lanes	0	0	0	0	0	0	1	1	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	0.95	1.00	1.00	0.95	1.00	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

HCM 6th TWSC
3: CTH F & Lindsay Road

2019 Exist TWSC - PM.syn
10/09/2019

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	Free	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
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	EBLn1WBLn1	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

Lanes, Volumes, Timings
3: CTH F & Lindsay Road

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	↖	→	↘	↙	←	↖	↗	↘	↙	↖	↗	↘	↙
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	

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Lanes, Volumes, Timings
3: CTH F & Lindsay Road

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	↖	→	↘	↙	←	↖	↗	↘	↙	↖	↗	↘	↙
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



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HCM 6th Signalized Intersection Summary
3: CTH F & Lindsay Road

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10/09/2019

												
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											

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	↖	→	↘	↙	←	↖	↗	↘	↙	↖	↗	↘	↙
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		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	

TADI
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Synchro 10 Report

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



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Synchro 10 Report

HCM 6th Signalized Intersection Summary
3: CTH F & Lindsay Road

2019 Exist Signal - PM.syn
10/09/2019

												
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											

TADI

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Synchro 10 Report



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Christian R. Sternke, P.E., RSP₁
csternke@tadi-us.com

CTH F & Lindsay Road Traffic Operations & Safety Intersection Analysis

March 2, 2020

**Pewaukee City Hall
W240 N3065 Pewaukee Rd
Pewaukee, WI 53072**

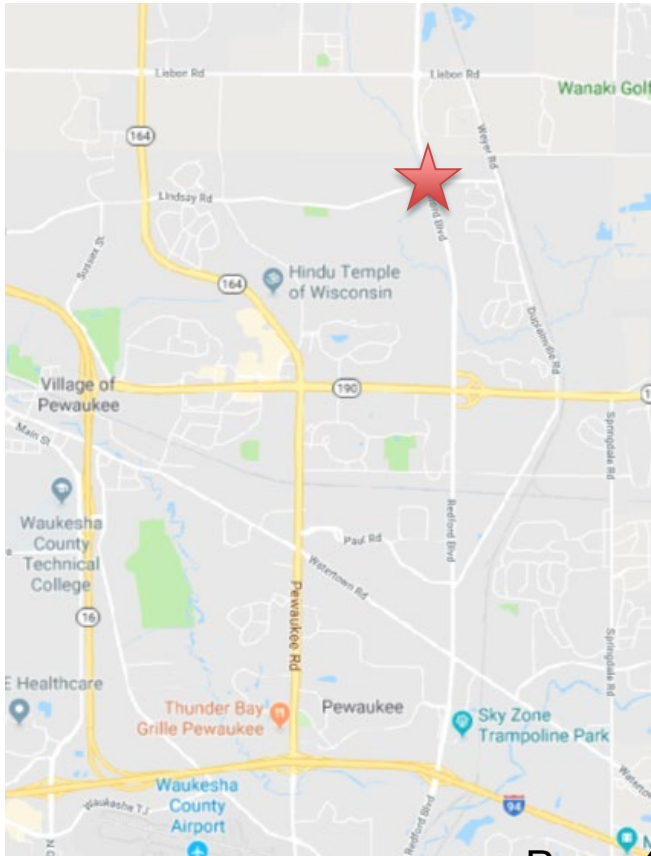


Today's Agenda

- *Introductions*
- *Study Purpose*
- *Intersection Operations*
- *Improvement Discussion*
 - *Traffic Signal Alternative*
 - *RCUT Alternative*
 - *Full Access Restriction*

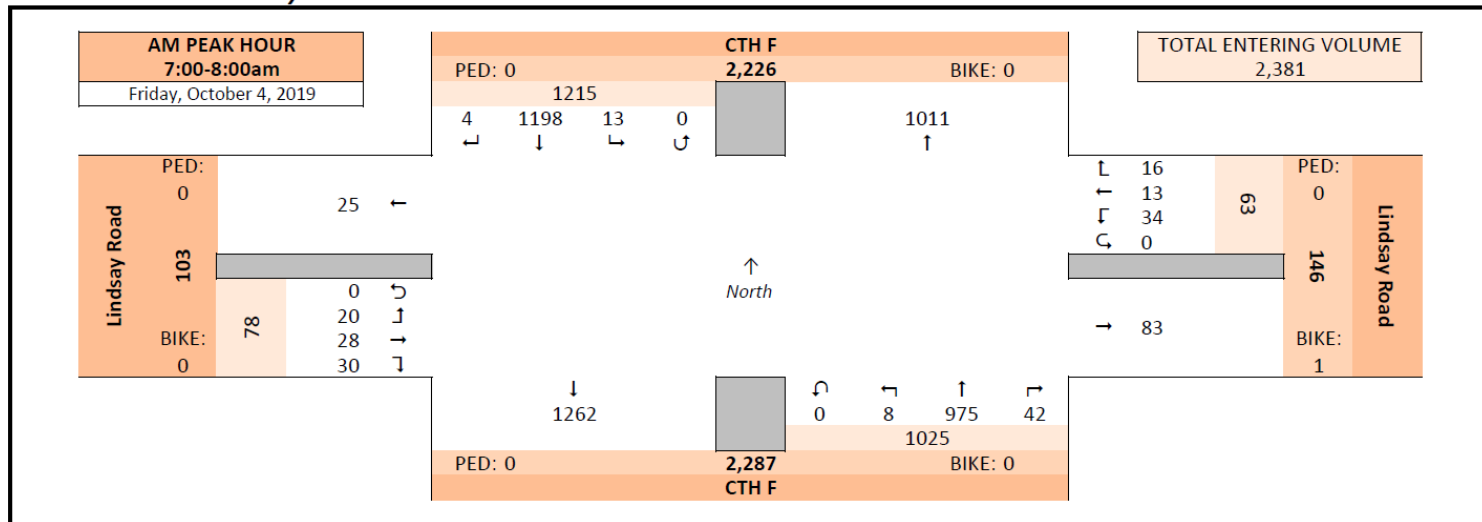
Study Purpose

- *Safety and operational analysis of CTH F intersection with Lindsay Road*

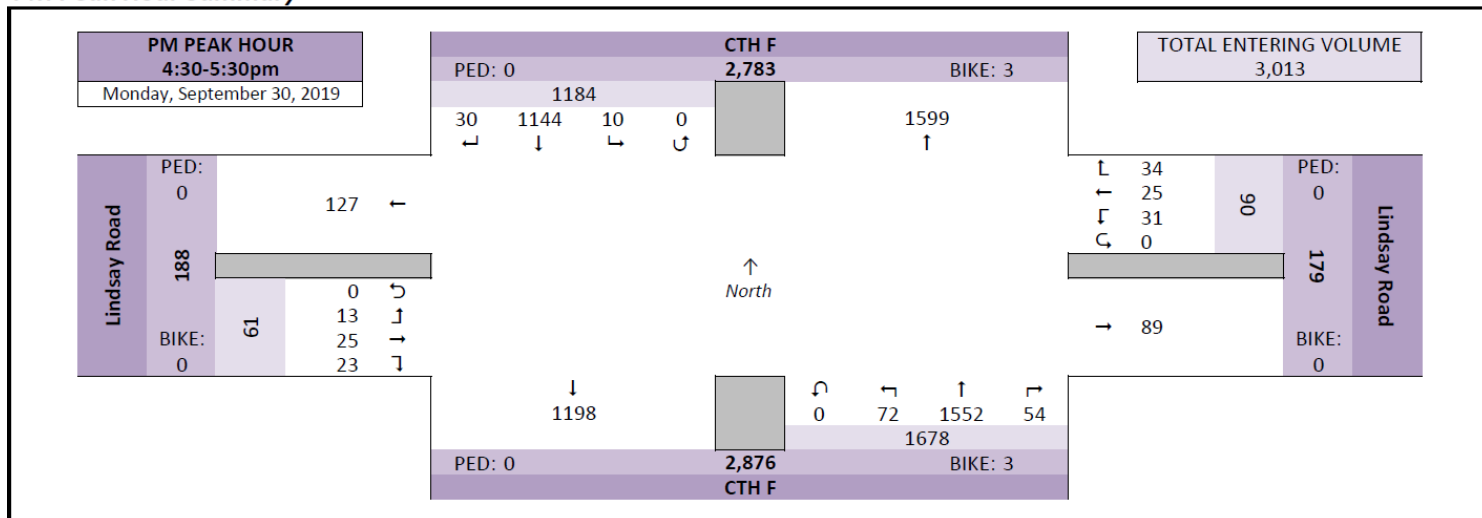


Traffic Counts

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
<i>Existing Geometrics with Two-Way Stop Control</i>	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.

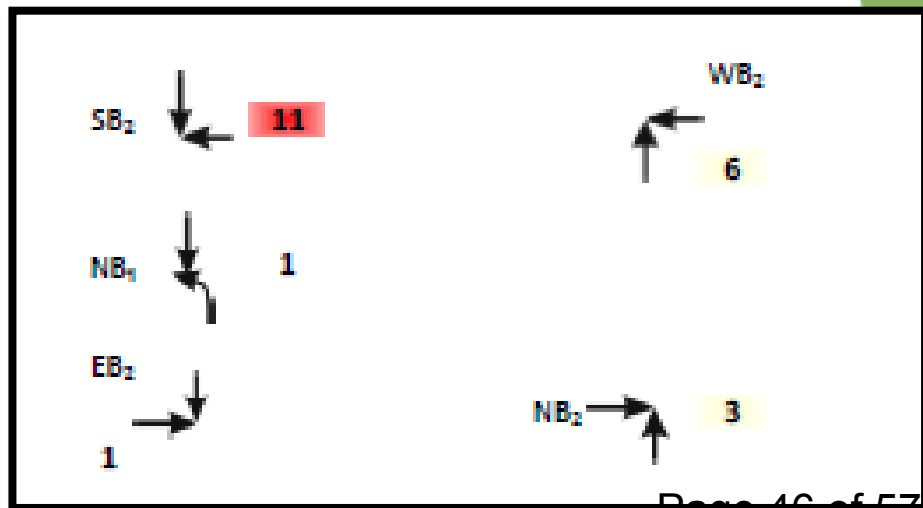
Queue is maximum of the 50th & 95th percentile queue, measured in feet.

Delay is HCM control delay, measured in seconds.

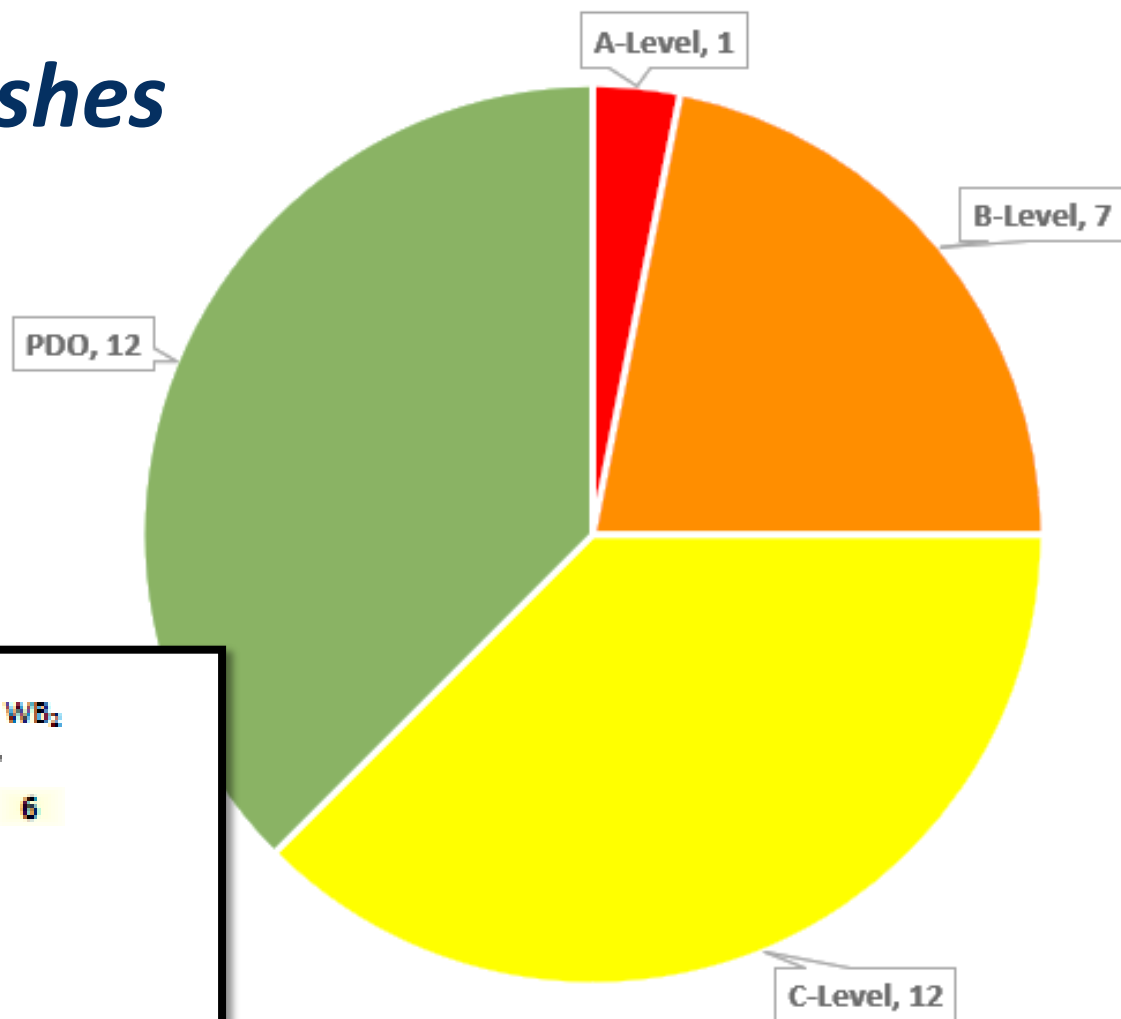
Crash History - 5 Years - (2015-2019)

- **27 Total Crashes**

22 Angle Crashes



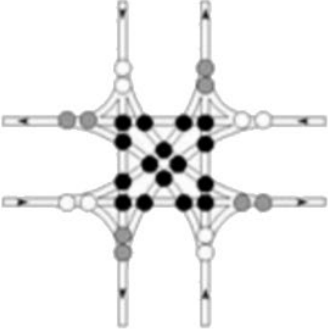
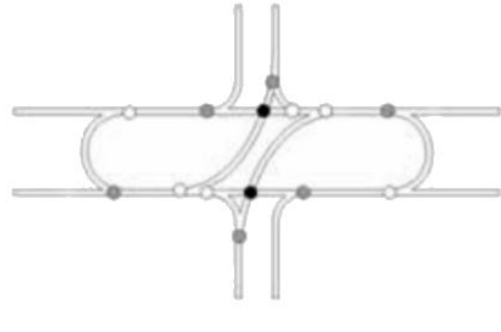
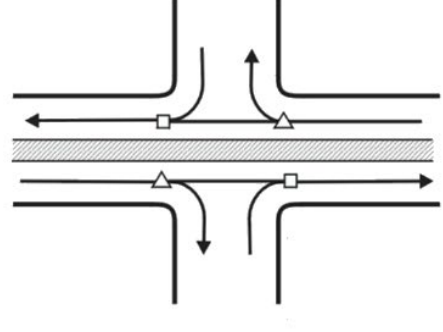
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Improvement Discussion

- *Traffic Signal*
- *RCUT*
- *Full-Access Restriction*

Conflict Points

4-Legged Intersection	RCUT	Median Closure
		
32	14	4

Traffic Signal Alternative

- *Based on 13-hour traffic count, NO traffic signal warrants are currently met*
- *Warrant 1, eight-hour volumes, would be met if Lindsay Road volumes increase by 45%*
- *Warrant 7, crash experience, would be met if Lindsay Road volumes increase by 15%*

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
<i>Existing Geometrics with Traffic Signal Control</i>	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***



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414-350-3256

jcampbell@tadi-us.com

Christian R. Sternke, P.E., RSP₁

csternke@tadi-us.com

Thank you.



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. Notwithstanding 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 5.**

DATE: March 2, 2020

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

PUBLIC HEARING, Discussion and Possible Action Regarding a Conditional Use Permit for Precision Diagnostics Located at W231 N2844 Roundy Circle East (PWC 0917-994-018) for the Purpose of Calibrating Vehicle Cameras and Sensors Post-Collision Repair [Fuchs]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Precision Diagnostics Staff Report

Precision Diagnostics Conditional Use Permit

Precision Diagnostics Narrative

Precision Diagnostics Site Plan



Office of the Planner & Community Development Director
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072
Phone (262) 691-0770 Fax (262) 691-1798
fuchs@pewaukee.wi.us

REPORT TO THE PLAN COMMISSION

Meeting of February 20, 2020

Date: February 11, 2020

Project Name: Precision Diagnostics Conditional Use

Project Address/Tax Key No.: W231N2844 Roundy Circle East/PWC 0917994018

Applicant: David Zielke, Precision Diagnostics

Property Owner: Roundy Circle East Investment LLC

Current Zoning: M-6 Mixed Industrial Use District

2050 Land Use Map Designation: Manufacturing/Fabrication/Warehousing

Use of Surrounding Properties: Industrial uses to the north, south, east and west

Project Description/Analysis:

The applicant, Precision Diagnostics, Inc., filed a Conditional Use Application requesting to locate an automotive service business use within a tenant space of an existing building located at W231N2844 Roundy Circle East. More specifically, Precision Diagnostics specializes in calibrating cameras and sensors after a vehicle is repaired following a collision.

The property is zoned M-6 Mixed Industrial Use District and designated as Manufacturing/Fabrication/Warehousing on the City's Year 2050 Land Use/Transportation Map. The proposed use is not specifically listed within the M-6 District; however, Section 17.0504 allows unspecified uses to proceed through the Conditional Use process.

17.0504 SPECIAL CONDITIONAL USES NOT SET FORTH IN DISTRICT REGULATIONS MAY BE ALLOWED, INCLUDING:

- a. All uses similar in character to the permitted uses on the premises, as determined by the Plan Commission, which meet the intent of the district but which are not specifically listed as permitted principal, accessory or conditional uses within the text of the zoning district classification or other section of this ordinance.

Further, Section 17.0209d. also allows 'unclassified uses' to be permitted by the Plan Commission provided "that such uses are similar in character to the principal uses permitted in the zoning district and create no circumstances that would detrimentally affect adjacent properties."

The M-6 District allows M-2 and M-4 District uses as Permitted Uses and all M-1, M-2, M-4, and B-4 District uses as Conditional Uses. Generally, this would include uses involved in warehousing, distribution, light industrial, manufacturing, and office.

Precision Diagnostics will occupy a 6,800 square foot tenant space. There will be approximately four to six vehicles in the shop per day. The applicant has indicated that there is no outdoor storage or other outdoor activities or repairs that would occur onsite. Further, there are no vehicle sales proposed.

The applicant is also not proposing any exterior site or building modifications other than signage. Signage must comply with Section 17.0700 of the Zoning Code and will require issuance of a separate Sign Permit.

Staff finds that the proposed use generally meets the intent of the M-6 District and will not adversely impact the property or surrounding uses. The M-6 District intent is below for review. Based upon the applicant's submittal and information provided, there will not be a significant increase or change in traffic as customer traffic is limited and typically vehicles are picked up and brought to this location by Precision Diagnostics. Further, the density is not changed as this is an existing tenant space.

The M-6, Mixed Industrial Use District is intended to provide for the orderly and attractive grouping of buildings, which encompass a variety of types of industrial related use activity, but are still compatible from a traffic, density and general use standpoint.

To ensure that the use is compatible with other M-6 District uses, staff recommends the following conditions:

1. There shall be no outdoor storage.
2. There shall be no outdoor activities allowed onsite. This includes, but is not limited to the parking of customer vehicles overnight and repairs or maintenance of vehicles. Precision Diagnostic owned commercial vehicles may be parked onsite overnight within the designated parking area behind the building as shown on the site plan submitted as part of the Conditional Use Application.
3. Precision Diagnostics shall complete a Business Plan of Operation Application and Notice of Intent to Discharge Wastewater Form prior to Occupancy.

Recommendation

As it is anticipated that the use does not have any adverse impacts on the surrounding properties and is generally similar to uses within this area, a motion to recommend approval of the Conditional Use Application is recommended, subject to the conditions listed in this report.

**A COVENANT
REGARDING THE ISSUANCE OF A
CONDITIONAL USE PERMIT
BY THE
CITY OF PEWAUKEE**

**TAX KEY NUMBER(S)
OR PARCEL(S) INVOLVED:** **CONDITIONAL USE
PERMIT:
NO. CUP-20-3-1**

PWC 0917994018

LEGAL DESCRIPTION:

PARCEL 2 CERT SURV 7726 VOL 66/151 3.665 AC PT NE1/4 SEC
14 T7N R19E DOC# 3596516

**PERSON(S), AGENT(S) OR CORPORATION(S) PETITIONING
FOR PERMIT:**

Precision Diagnostics, Inc.

Recording area

Name & Return Address

City of Pewaukee
W240N3065 Pewaukee Rd
Pewaukee, WI 53072

WHEREAS, It is understood by all parties to this covenant that Section 62.23 of WIS. Statutes prescribes the legal basis for the granting of a conditional use permit by a City and Chapter 17 of the City Codes and Ordinances provides for the issuance of such permits as well as the standards by which all such uses will be measured; and,

WHEREAS, The City Plan Commission has held a meeting on February 20, 2020; has reviewed the various elements of the petitioners proposal; and has recommended that a Conditional Use Permit be granted to the above named petitioner for the property/parcel identified above; and,

WHEREAS, The City Common Council, held a public hearing meeting held on March 2, 2020.

NOW, THEREFORE, let it be known that the City Common Council by its action on March 2, 2020 has, hereby, granted a Conditional Use Permit for the following use(s):

Calibrating advance drivers assist systems cameras and sensors post-collision repair.

FURTHER, such approved use of the above designated parcel(s) are hereby allowed based on the following conditions being continually met:

1. There shall be no outdoor storage.
2. There shall be no outdoor activities allowed onsite, including repairs or maintenance of vehicles. Precision Diagnostic owned commercial vehicles may be parked onsite overnight within the designated parking area behind the building as shown on the site plan submitted as part of the Conditional Use Application.
3. Precision Diagnostics shall complete a Business Plan of Operation Application and Notice of Intent to Discharge Wastewater Form prior to Occupancy.

The parties hereto, namely the City of Pewaukee and the Equitable Owner of the property for which this conditional use has been sought, set their signatures or the signatures of their representatives below, thereby agreeing to the provisions and conditions set forth in this covenant.

Attest:

Signature of equitable owner

Date

Kelly Tarczewski
City Clerk

Steve Bierce
Mayor, City of Pewaukee

Date

State of Wisconsin
County of Waukesha

Signed or attested before me on _____, 2020 by Steve Bierce, Mayor and Kelly Tarczewski, Clerk.

(Seal)

Ami Hurd
My Commission expires _____

This instrument was drafted by Ami Hurd, Deputy Clerk



Narrative detailing the request:

After experiencing significant growth at our first location in Madison WI, we are looking to expand to a second location in the greater Milwaukee region. Our customers operate in Pewaukee and the surrounding area.

Business use/operational information:

Precision Diagnostics is a sublet vendor designed to support collision centers. We calibrate advance drivers assist systems (ADAS) cameras and sensors post collision repair. Our process is performed at the end of the repair cycle once the collision repairer has completed their services. This is generally the final process performed before the customer takes delivery at the collision center. The vehicles that we receive to calibrate are completely repaired and assembled. We operate a state of the art flat-bed recovery truck that transports the customers vehicle to and from the collision centers. If requested by the collision partner, we will deliver the car directly to the end user customer.



Future development plans: None

Site and building improvements: None

Tentative development schedule:

- * City approval March 2nd.
- * Lease commence March 3rd.
- * Equipment move in and install March 15th.
- * Open for business April 1st.

Estimated project value: None



LOCATION #1 – WHAT OUR BUSINESS LOOKS LIKE



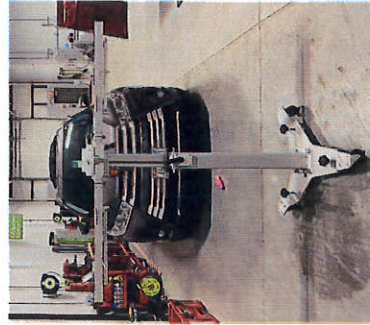
FRONT OF BUILDING



CAR SET UP FOR CALIBRATION

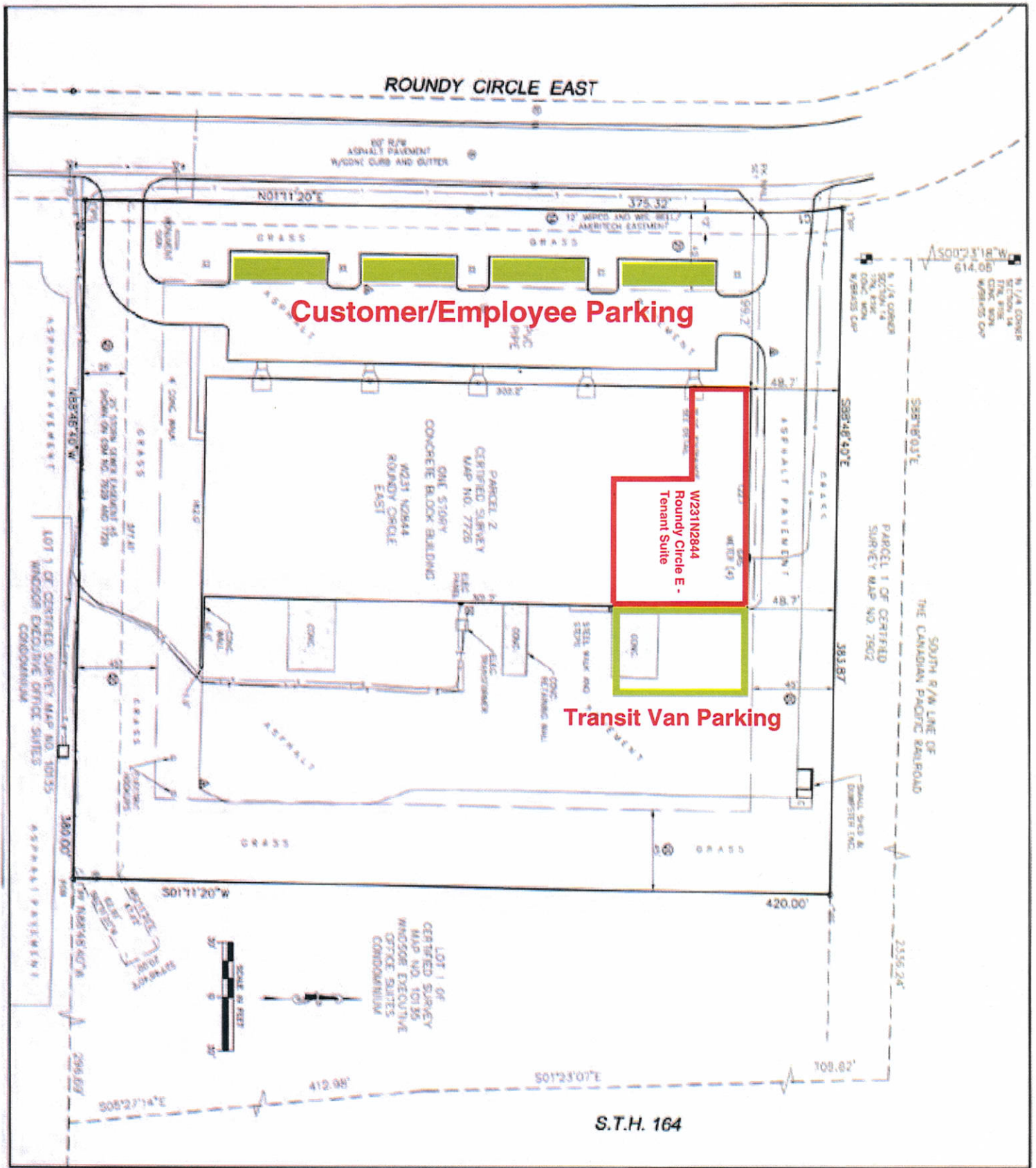


REAR OF BUILDING



CAR SET UP FOR CALIBRATION





**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 6.**

DATE: March 2, 2020

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

PUBLIC HEARING, Discussion and Possible Action Regarding a Conditional Use Permit for Hanrahan's Small Engine Located at N15 W22180 Watertown Road (PWC 0960-999-015) for the Purpose of Servicing and Selling Lawnmowers and Snow Blowers [Fuchs]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Hanrahan's Small Engine Staff Report

Hanrahan's Small Engine Conditional Use Permit

Hanrahan's Site Plan



Office of the Planner & Community Development Director
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072
Phone (262) 691-0770 Fax (262) 691-1798
fuchs@pewaukee.wi.us

REPORT TO THE PLAN COMMISSION

Meeting of February 20, 2020

Date: February 11, 2020

Project Name: Hanrahan's Small Engine, LLC Conditional Use

Project Address/Tax Key No.: N15W22180 Watertown Road/PWC 0960999015

Applicant: David M. Hanrahan

Property Owner: Kroeger Properties, LLC

Current Zoning: B-6 Mixed Use Business District

2050 Land Use Map Designation: Manufacturing/Fabrication/Warehousing

Use of Surrounding Properties: Industrial land zoned M-2 District to the north and east, Lowland Conservancy property to the south, and commercial B-6 zoned property to the west

Project Description/Analysis:

The applicant, Hanrahan's Small Engine, LLC, filed a Conditional Use Application requesting to locate a small engine repair and sales business use within an existing tenant space at N15W22180 Watertown Road. Hanrahan's Small Engine LLC primarily services and sells lawnmowers, snow blowers, and other gas powered lawn maintenance and snow removal equipment.

The proposed tenant space will include approximately 2,400 square feet of shop space and about 1,500 square feet of office and showroom space for the sale of new lawnmowers and snow blowers. The applicant anticipates 15 to 20 customers per day.

There is no outdoor storage proposed and the applicant has indicated that no outdoor sales, repairs, or other business activities are planned onsite. The applicant also noted that any gasoline and oil waste is contained in barrels within the shop area, which are then taken off site for disposal.

The applicant is not making any exterior changes to the site or building. There is existing parking around the perimeter of the site for customers. Also, any signage proposed in the future must comply with Section 17.0700 of the Zoning Code and will require issuance of a separate Sign Permit.

The subject property is zoned B-6 Mixed Use Business District and designated as Manufacturing/Fabrication/Warehousing on the City's Year 2050 Land Use/Transportation Map.

The B-6 District allows B-4 and B-5 Permitted and Conditional Uses. The District also lists "Any retail, service or office use that is compatible with those uses listed above as determined by the Plan Commission" as a Conditional Use. It can be noted that the B-5 District allows "Motor vehicle sales and/or service" as a Conditional Use.

Further, staff finds that the proposed use is similar to other sales and service type uses located within this same multi-tenant building.

Recommendation

As it is anticipated that the use does not have any adverse impacts on the surrounding properties and is similar and compatible with existing uses, a motion to recommend approval of the Conditional Use Application is recommended, subject to the following conditions:

1. *There shall be no outdoor storage.*
2. *There shall be no outdoor activities allowed onsite. This includes, but is not limited to the repair, maintenance, or sales of lawn mower and snow removal equipment.*

**A COVENANT
REGARDING THE ISSUANCE OF A
CONDITIONAL USE PERMIT
BY THE
CITY OF PEWAUKEE**

TAX KEY NUMBER(S) OR PARCEL(S) INVOLVED: **CONDITIONAL USE PERMIT:**
NO. CUP-20-3-2

PWC 0960999015

LEGAL DESCRIPTION:

LOT 1 CERT SURV 7172 VOL 60/287 2.637 AC PT SE1/4 SEC 24
T7N R19E R2056/184

PERSON(S), AGENT(S) OR CORPORATION(S) PETITIONING FOR PERMIT:

Hanrahan's Small Engine

Recording area

Name & Return Address

City of Pewaukee
W240N3065 Pewaukee Rd
Pewaukee, WI 53072

WHEREAS, It is understood by all parties to this covenant that Section 62.23 of WIS. Statutes prescribes the legal basis for the granting of a conditional use permit by a City and Chapter 17 of the City Codes and Ordinances provides for the issuance of such permits as well as the standards by which all such uses will be measured; and,

WHEREAS, The City Plan Commission has held a meeting on February 20, 2020; has reviewed the various elements of the petitioners proposal; and has recommended that a Conditional Use Permit be granted to the above named petitioner for the property/parcel identified above; and,

WHEREAS, The City Common Council, held a public hearing meeting held on March 2, 2020.

NOW, THEREFORE, let it be known that the City Common Council by its action on March 2, 2020 has, hereby, granted a Conditional Use Permit for the following use(s):

Servicing and selling lawnmowers and snow blowers.

FURTHER, such approved use of the above designated parcel(s) are hereby allowed based on the following conditions being continually met:

1. There shall be no outdoor storage.
2. There shall be no outdoor activities allowed onsite. This includes, but is not limited to the repair, maintenance, or sales of lawn mower and snow removal equipment.

The parties hereto, namely the City of Pewaukee and the Equitable Owner of the property for which this conditional use has been sought, set their signatures or the signatures of their representatives below, thereby agreeing to the provisions and conditions set forth in this covenant.

Attest:

Signature of equitable owner

Date

Kelly Tarczewski
City Clerk

Steve Bierce
Mayor, City of Pewaukee

Date

State of Wisconsin
County of Waukesha

Signed or attested before me on _____, 2020 by Steve Bierce, Mayor and Kelly Tarczewski, Clerk.

(Seal)

Ami Hurd
My Commission expires _____

This instrument was drafted by Ami Hurd, Deputy Clerk

Hanrahan's Small Engine
2920 N. Brookfield Rd
Brookfield W.I. 53045
414-304-4057

Hanrahan's Small Engine was opened in 2014 as a full-service lawnmower and snowblower repair shop. Hanrahan's currently resides in Brookfield Wisconsin, but we have outgrown our space. We are looking to lease a larger space as well as have a permanent location at the address of N15W22180 Watertown RD.

Hanrahan's is a full-service repair shop for any gas-powered lawn and snow maintenance machine. We also sell a full line up of brand-new Lawnmowers and snowblowers. This new location will offer much more room for both departments. 2400 sq. feet of work shop and approximately 1500 sq. feet of office/showroom area will be used.

The shop area will be used to work on and store customer machines. Gasoline and oil will be prevalent in this area. No gasoline or oil will be in the machines that are displayed in the showroom.

Our hours of operation are:

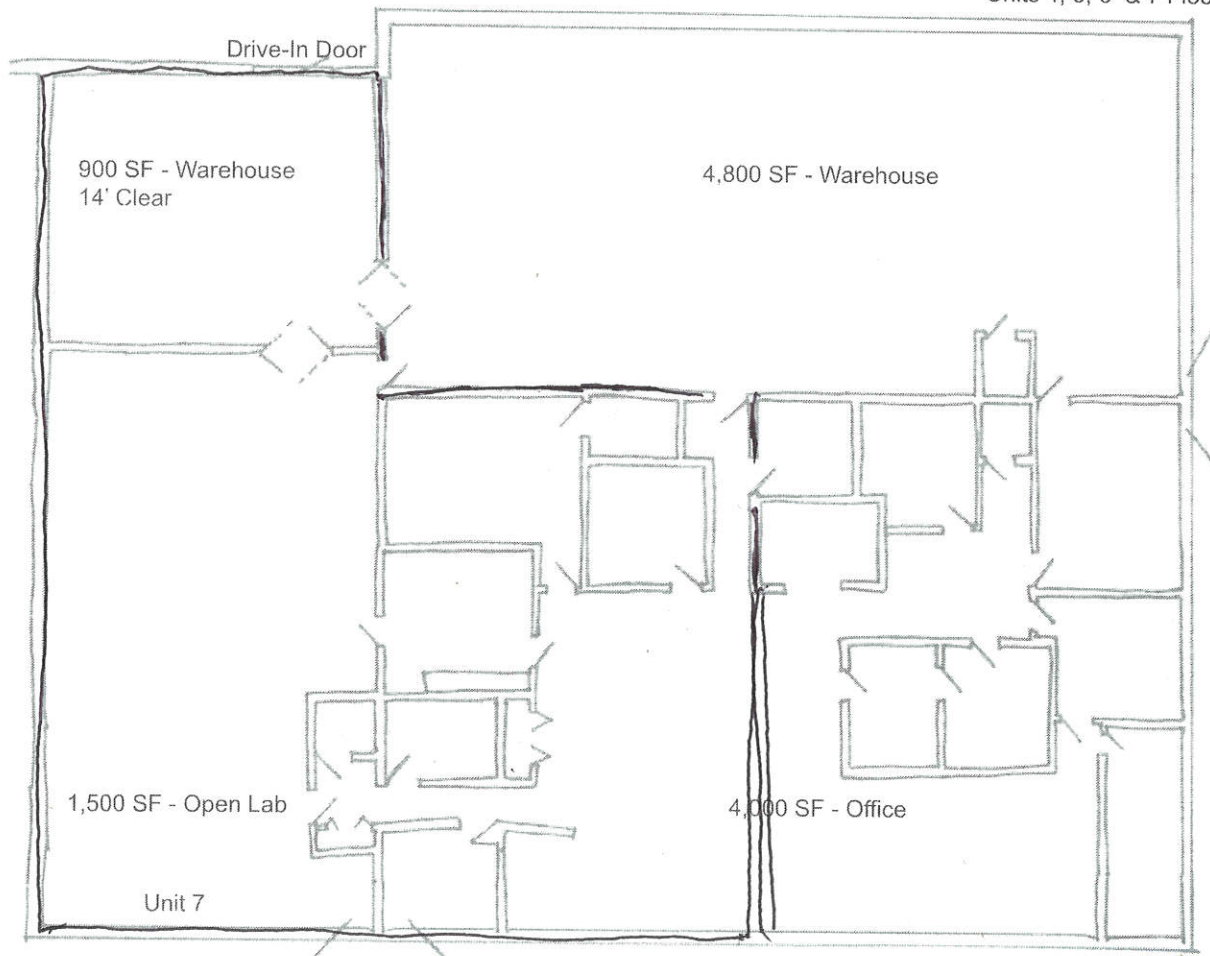
Monday-Friday 9am to 5pm
Saturday 8am to Noon
Sunday Closed

Expected customer rates are roughly 15 to 20 customers a day. Yearly income of \$100,000 to \$200,000.

No renovations to the building will be needed for us to operate.

Thank You
David Hanrahan
Hanrahan's Small Engine
414-304-4057

Units 4, 5, 6 & 7 Floor Plan



The information contained herein has been obtained from sources deemed reliable but has not been verified and no guarantee, warranty or representation, either express or implied, is made with respect to such information. Terms of sale or lease and availability are subject to change or withdrawal without notice.

The space outlined in Black will be the Space Bay leased.

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 7.**

DATE: March 2, 2020

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

PUBLIC HEARING, Discussion and Possible Action Regarding the Plan Commission Recommendation for a Comprehensive Master Plan Amendment to Change the Year 2050 Land Use/Transportation Plan Use Designation for Arce Handyman LLC for Property Located on Bluemound Road (PWC 0951-995-001) From Manufacturing/Fabrication/Warehousing to Manufacturing/Fabrication/Warehousing and Flood Plains, Lowland and Upland Conservancy, and Other Natural Areas (Lot 1); and From Manufacturing/Fabrication/Warehousing to Medium Density Residential (6,500 SQ. Ft. - 1/2 AC./Dwelling Unit) and Floodplains, Lowland and Upland Conservancy, and Other Natural Areas (Lot 2) [Fuchs]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Arce Handyman Insert #6

Item #6

Please note that there are no materials for items related to the Arce Handyman, LLC development. At this time, it is anticipated that these items will be tabled and the applicant will submit plans for the March 19th Plan Commission meeting. Please be aware that a public hearing is scheduled for the Rezoning Application.

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 8.**

DATE: March 2, 2020

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

PUBLIC HEARING, Discussion and Possible Action Regarding the Plan Commission Recommendation for a Conditional Use Permit and Site and Building Plans for Arce Handyman LLC for Property Located on Bluemound Road (PWC 0951-995-001) for the Purpose of Constructing a Combined Warehouse/Office Building for a Landscape and Handyman Service Company [Fuchs]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Arce Handyman Insert #8

Item #8

Please note that there are no materials for items related to the Arce Handyman, LLC development. At this time, it is anticipated that these items will be tabled and the applicant will submit plans for the March 19th Plan Commission meeting. Please be aware that a public hearing is scheduled for the Rezoning Application.

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 9.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Discussion and Possible Action Regarding **Resolution 20-03-04** Rescinding Personal Property Taxes for Everbank Commercial Finance Located at W223 N603 Saratoga Drive (PWC E444) in the amount of \$100.72 [Tarczewski]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Request to Remove

Resolution 20-03-04

Tarczewski, Kelly

From: Ryan Komoromi <RyanK@osgtax.com>
Sent: Monday, February 10, 2020 11:38 AM
To: Tarczewski, Kelly
Cc: BreAnn O'Neill
Subject: Pewaukee County, WI TIAA Commercial Finance

Importance: High

Hi Kelly,

My name is Ryan Komoromi, and I am contacting you on behalf of TIAA Commercial Finance, account PWCE444. The assets reported on this account had previously been exempt from taxation (we were not asked to file them under an "exempt account" nor had we been told to omit the assets from our annual filing), but were taxed for 2019. We did pay the bills to avoid any sort of penalty. After speaking with the assessor, we have found this to be an illegal tax, so I would like to pursue a refund for the taxes paid. Should you encounter any questions or concerns in resolving this, please feel free to contact me. Thank you for your help in this matter.

Best,

Ryan Komoromi

Outsourcing Solutions Group LLC

Phone: (469) 326-1421

Fax: 214-221-4255

RyanK@OSGTax.com



This e-mail and any accompanying attachments contain privileged and confidential information only meant to be read by the intended recipient. If you received this e-mail in error, please delete it without copying or forwarding, and notify the sender by reply e-mail.

RESOLUTION 20-03-04**RESCIND TAXES ON SPECIFIC PERSONAL PROPERTY
PURSUANT TO SECTION 74.33(1)(c), WIS. STATS.
IN THE CITY OF PEWAUKEE**

WHEREAS, Everbank Commercial Finance, further identified as tax key number PWC E444, has petitioned the Common Council pursuant the provisions of Section 74.33(1)(c) of the Wisconsin Statutes to rescind in whole any personal property tax shown in the tax roll due to a palpable error; and

WHEREAS, Everbank Commercial Finance is located at W223 N603 Saratoga Drive; and

WHEREAS, Ryan Komoromi, the representative from Everbank Commercial Finance, indicated the property is exempt from taxation; and

WHEREAS, The personal property assessment for this tax key was originally valued at \$6,700.00 for January 1, 2019 which resulted in a property tax overcharge of \$100.72 for 2019; and

WHEREAS, Based on the information provided and verified, the City Assessor has removed this account from the City's records and has recommended the total rescission amount of \$100.72 tax due and owing on and against the parcel referenced above.

NOW, THEREFORE, BE IT RESOLVED, by the Pewaukee Common Council as follows:

1. The personal property tax shown on the tax roll against the above-referenced parcel shall be rescinded in the amount of \$100.72.
2. The Waukesha County Treasurer shall be notified of this action.
3. The City Clerk/Treasurer is instructed to refund Everbank Commercial Finance in the amount of \$100.72.

SEVERABLE: The several sections of this resolution 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 resolution. The remainder of the resolution shall remain in full force and effect. Any other resolutions whose terms are in conflict with the provisions of this resolution are hereby repealed as to those terms that conflict.

Dated this 2nd day of March, 2020.

COMMON COUNCIL, CITY OF PEWAUKEE
WAUKESHA COUNTY, WISCONSIN

ATTEST:

Steve Bierce, Mayor

Kelly Tarczewski, Clerk/Treasurer

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 10.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Discussion and Possible Action to Determine How Often the City of Pewaukee will Update their Financial Plan [Klein]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Ehlers Email

Tarczewski, Kelly

From: Greg Johnson <gjohnson@ehlers-inc.com>
Sent: Wednesday, February 5, 2020 1:53 PM
To: Tarczewski, Kelly
Cc: Klein, Scott
Subject: RE: Future Financial Plans

Hi, Kelly.

Most of the communities where we do annual updates choose to do so because they use the plan as a tool to guide budget decisions annually. Many communities update the model before starting the budget process and use it as an "all in" scenario to see the impact of funding operations and the full CIP. From there, the budget process continues as usual. Most staff and elected officials that request the annual update want to see a multi-year look at the overall budget before priorities are established for the upcoming fiscal year. All of this is done to stay current on any fiscal issues or challenges that may occur and to identify these in advance.

The cost to complete an annual update is \$3,750. This includes an update of the model and a presentation to the Common Council similar to what was presented the other night. The cost for this plan was \$15,500, which was slightly less than the initial cost back in 2012. Our cost have not changed much recently, but I cannot say for certain costs may not change within the next 5 years. We offer the annual update to provide continuity from the initial planning effort to keep current on trends and other considerations.

Please let me know if you have any other questions. Thanks.

Greg

Greg Johnson, CIPMA
Senior Municipal Advisor
O: (262) 796-6168 | ehlers-inc.com



Our Wisconsin Public Finance Seminar is February 20-21, 2020. Please join us!

[Learn More](#) | [Register Now](#)

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From: Tarczewski, Kelly <tarczewski@pewaukee.wi.us>
Sent: Wednesday, February 5, 2020 1:09 PM
To: Greg Johnson <gjohnson@ehlers-inc.com>
Cc: Klein, Scott <sklein@pewaukee.wi.us>
Subject: Future Financial Plans

Hi Greg!

At our last meeting you mentioned that other communities typically have Ehlers update their financial plan annually and may see some cost savings doing it this way verses waiting and update as we just did. We thought we'd discuss this option with the Common Council at our next meeting to get a feel for what they want. Could you give us prices on annual updates and possibly every five years.

THANKS!

K

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 11.**

DATE: March 2, 2020

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Discussion and Possible Action to Remove Patrick Johnson from the Fire Commission and Appoint Thomas Farley to Fill the Vacancy [Mayor Bierce]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

**CITY OF PEWAUKEE
COMMON COUNCIL AGENDA ITEM 12.**

DATE: March 2, 2020

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion Regarding the Current City-Wide Prohibition of Electronic Message Board Signs According to Section 17.0700 of the City Zoning Code [Fuchs]

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Chapter 17

property line one (1) foot for each additional square foot in sign area over 25 square feet up to 50 square feet in area; and, shall not exceed one (1) sign per street frontage. No such sign shall be erected or maintained within an inside curve of a highway unless such signs are placed at least fifty (50) feet from the highway right-of-way and further than fifty (50) feet from the right-of-way as may be necessary to prevent such sign from interfering with vision along the highway for a distance of at least one thousand (1,000) feet in each direction by those traveling thereon. Such signs are considered temporary signs and shall be removed no later than seven (7) days after closing of the sale or lease and the permit for such sign shall expire on June 30th each year unless extended for a specific period of time by official action of the Zoning Administrator or Plan Commission.

17.0705 SIGNS PERMITTED IN RESIDENTIAL DISTRICTS WITH A PERMIT

The following signs are permitted in residential districts upon the issuance of a permit by the Building Inspector or Zoning Administrator and subject to the following regulations:

- a. Permanent Name Sign not exceeding four (4) square feet in sign area and located on the premises.
- b. Permanent Subdivision/Development Identification Sign no more than six (6) feet in height; constructed of wood, metal and/or masonry; and, of a design which will be compatible with the landscape and shall state only the name and address of the subdivision. Such signs and their location, height and size shall be reviewed and approved by the Plan Commission and/or the City Planner prior to issuance of a permit.

17.0706 SIGNS PERMITTED IN BUSINESS, INDUSTRIAL, PARK AND INSTITUTIONAL DISTRICTS WITH A PERMIT

The following signs are permitted in all Business, Industrial, Park and Institutional Districts upon the issuance of a permit by the Building Inspector or Zoning Administrator and subject to the following restrictions:

- a. Permanent Wall Sign placed on or against the exterior wall(s) of buildings shall not extend more than one (1) foot outside of a building's wall surface; shall not exceed in sign area the equivalent of two (2) square feet for each linear one (1) foot of building (store) and, any ancillary lighting shall be shielded to avoid glare. Wall signs (and structure) shall not extend above the ceiling level of the top floor of the building upon which they are located and shall not block window, door or vent openings. Such signs may not be used as 'for sale' or 'for lease/rent' signs except for the property on which the sign is located. The sign must comply with the site and building standards set forth in sub-section 17.0210.
- b. Permanent Projecting Sign fastened to, suspended from or supported by structures on buildings shall not exceed 50 square feet in sign area, or 100 percent of the building setback from the property line as expressed in square feet, whichever is larger, to a maximum of 150 square feet for any one premise; shall not extend into any public right-of-way; shall not extend above the lowest point on the roof; shall not be less than ten (10) feet from all side lot lines, or beyond the building wall, whichever is less; shall not exceed a height of 16 feet above the adjacent center line street grade and shall not be less than ten (10) feet above the level of the primary access, nor less than 15 feet above a driveway and, shall not be located within 150 feet from any ground sign. Such

sign must comply with the site and building standards set forth in sub-section 17.0210.

- c. Permanent Ground Sign, other than billboards, as defined herein, shall not exceed 12 feet in height above the mean centerline grade of the nearest street unless approved by the Plan Commission; shall not exceed in sign area 25 square feet on one side at the street property line but may be increased in sign area size one (1) square foot for each one (1) foot the sign is set back from the street property line to a maximum of 150 square feet on one side. Only one (1) ground sign shall be allowed on a street frontage of a single (individual) property and no ground sign shall be placed closer than 150 feet from another ground sign, projecting sign or billboard. Any such sign located within 660 feet of a residential zoning district boundary shall not be illuminated during the seven hour period beginning at eleven (11) PM and ending at six (6) AM. No such sign shall have exposed flashing, digital or electrically movable lighting or images of any kind with the exception that such signs may have movable words and numbers if required by local, state or federal law. Such signs must comply with the site and building standards set forth in sub-section 17.0210. Permanent ground signs on parcels of more than five acres in area, over 75 feet in sign area, and any subsequent changes to such signs must be approved by the Plan Commission. (Also see sub-section 17.0708).
- d. Off-Premise Directional/Sales Sign as defined herein, other than billboards when permitted by the Plan Commission, shall meet the requirements of the type of sign as set forth in this Section; shall not exceed two (2) in number within the City per business, resort or commercial recreation facility as well as the principal merchandise sold; shall not exceed in sign area 25 square feet on one side at the street property line but may be increased in size one (1) square foot for each one (1) foot the sign is set back from the street property line to a maximum of 50 square feet on one side; and, shall be a maximum three (3) miles distance from the designated business being advertised. Such sign may be placed only in a retail business or industrial zoning district. The permit for such sign shall expire on June 30th each year but may be extended for one year upon issuance of a new permit by the Zoning Administrator or Building Inspector. (Also see sub-section 17.0708).
- f. Permanent Window Sign shall be placed only on the inside of the window and shall not exceed twenty-five (25) percent of the glass area of the window upon which the sign is displayed. Illuminated window signs shall not be illuminated after the business is closed for the day.
- g. Billboard as defined herein is considered a commercial use and as such may only be permitted in retail business or industrial zoned areas and when permitted by the Plan Commission shall not exceed 25 feet in height; shall be set back from a property line the same distance as set forth for principal buildings in the zoning district regulations; shall be located not closer than 1,320 feet from another billboard, ground sign or off-premises sign and no such sign shall have exposed, flashing, digital or electrically movable lighting, or images of any kind. A billboard located within 660 feet of a residential zoning district boundary shall not be illuminated during the seven hour period beginning at eleven (11) PM and ending at six (6) AM.
- h. Combinations of any signs in this Section shall meet all the requirements for the individual sign.

- i. Roof Signs as defined herein shall not be allowed.
- j. All signs with no current permit must be removed.

17.0707 SIGNS PERMITTED IN CONSERVANCY AND FLOODPLAIN ZONING DISTRICTS WITH A PERMIT

Signs as permitted in sub-section 17.0703 (a) and (b) shall be permitted in the Upland and Lowland Conservancy Zoning Districts upon the issuance of a permit by the Building Inspector or Zoning Administrator. No sign may be permitted in a Floodplain District.

17.0708 SPECIAL RESTRICTIVE PROVISIONS

Following are special restrictive provisions that relate, generally, to all signs or premises in the City:

- a. Roof Top signs; Flashing, Blinking or Electronically Movable Copy Signs, Portable and other movable signs, as well as any sign within a public street or highway right-of-way, shall be prohibited except as provided in sub-section 17.0706 . Small permanent directional signs for religious and other institutional or governmental destinations within the community such as a hospital, a school, government building or a church may be located within public right-of-ways when approved by the Plan Commission or the county or state agency having jurisdiction.
- b. Signs Facing on Federal Interstate or Federal Aid Primary Highways shall meet all the requirements and regulations set forth in Wisconsin statutes and federal regulations as well as the regulations for the type and location of signs set forth herein, whichever is more restrictive.
- c. Words and Phrases on Signs should be kept to a minimum to allow reading or interpretation from a moving vehicle at posted speed limits without slowing down, thereby reducing potential traffic hazard. A combination of ten (10) words, sets of numbers, logos, or pictures should, under normal circumstances, be considered as a guide for maximum sign phrasing.
- d. The Plan Commission or Zoning Administrator may require a cash bond or irrevocable letter of credit of the applicant for a permanent sign permit to ensure that the sign is erected as required by these regulations and the Plan Commissions directions.
- e. Signs advertising land or building space 'For Sale' or 'For Lease/Rent' are temporary signs and may not be a permanent sign and must be removed when the property/premises on which the sign is located is sold, leased or rented. The permit for any such sign requiring a permit will expire on June 30th each year and must be renewed in writing by the Building Inspector to extend the permit. Such signs may not advertise properties other than the property on which the sign is located.

17.0709 SEARCHLIGHTS/BALLOONS

The Zoning Administrator or Building Inspector may permit the temporary use of a searchlight or balloons for advertising purposes in any district except residential districts provided that the searchlight or balloon will not be located in any public right-of-way; will not be located closer than 10 feet to an adjacent property; and, will not be a vision or audio nuisance or cause a hazard to traffic or adjoining properties. Searchlight and balloon permits shall be granted for a period of not