Planning Department

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

PLAN COMMISSION
MEETING NOTICE AND AGENDA
Thursday, May 18, 2023
6:00 PM

Common Council Chambers
W240 N3065 Pewaukee Road, Pewaukee, WI 53072

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1. Call to Order and Pledge of Allegiance

2. Discussion and Action Regarding Approval of the November 17th, 2022 and January 19th, 2023 Meeting Minutes

3. Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit and Site and Building Plans for Quattro Development/Higher Ground Education for Property Located on Highfield Court for the Purpose of Constructing a Childcare Facility (PWC 0906994)

4. Discussion and Action Regarding a Certified Survey Map for Wildeck, Inc. for Property Located on East North Street in the City of Waukesha for the Purpose of Dedicating the West Half of East North Street that is Currently Highway Right-Of-Way

5. Discussion and Action and Public Hearing for Regal Development LLC to Rezone Property Located at N29 W22817 Marjean Lane from Rs-5 Single-Family Residential to B-3 General Business for the Purpose of Constructing a 50-Unit Self-Storage Facility (PWC 0914976)

6. Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit and Site and Building Plans for Regal Development LLC for Property Located at N29 W22817 Marjean Lane for the Purpose of Constructing a 50-Unit Self-Storage Facility (PWC 0914976)

7. Adjournment

Ami Hurd
Deputy Clerk

5/11/2023

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 City Planner, Nick Fuchs, at (262) 691-6007 three business days prior to the meeting so that arrangements may be made to accommodate your request.

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 2.

DATE: May 18, 2023

DEPARTMENT: Clerk/Treasurer

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding Approval of the November 17th, 2022 and January 19th, 2023 Meeting Minutes

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

11.17.22 minutes

1.19.23 minutes

In attendance:
Mayor Steve Bierce, Alderwoman C. Brown, T. Janka, D. Linsmeier, and S. Sullivan.

Also in attendance:
City Planner & Community Development Director N. Fuchs, Administrator S. Klein, Department of Public Works Director M. Wagner, and Deputy Clerk A. Hurd.

1. Call to Order and Pledge of Allegiance

   Chairman Bierce called the meeting to order at 6:00pm and requested everyone stand for the Pledge of Allegiance.

2. Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit and Site and Building Plans for CFR Engines for Property Located at N8 W22577 Johnson Drive for the Purpose of Constructing a 7,100 Square Foot Building Addition and a 500 Square Foot Chemical Storage Building and Allowing the Storage of Flammable Materials and Substances (PWC 0963999030)

   Mr. Fuchs stated the applicant provided a list of chemicals that will be stored, and the Fire Chief did not have any objections to that list. He stated this was an addition to the rear of the building, so not much would be seen from public view. The materials match the existing building, and they are also adding 16 parking spaces. They will be adding various trees to the site, as well as lighting in the parking lot and on the building. Mr. Fuchs recommended approval with no conditions. It was noted that the addition will be 9,100 square feet, not 7,100 square feet as listed on the agenda.

   A motion was made and seconded (D. Linsmeier, C. Brown) to recommend approval of the Conditional Use Permit and the Site and Building Plans for CFR Engines. Motion Passed: 5-For, 0-Against.

3. Discussion and Action Regarding the Site and Building Plans for Waukesha Gun Club Located at N22 W23170 Watertown Road for the Purpose of Constructing a New Five-Stand Shooting Structure (PWC 0920998 & PWC 0920997)

   Mr. Fuchs stated the stands would match the stands that were approved back in 2020. He noted it would be wood sided with overhead doors and patio doors and would include a brick belt along the bottom of the stand. There are conditions listed in the staff report for the structure to match and have similar landscaping as the other buildings. Mr. Fuchs noted the condition regarding the Certified Survey Map is not required. He recommended approval of the site and building plans.

   Larry Marincic (N30 W22121 Green Road) was concerned about the increased noise from the Gun Club, and he felt the noise was coming from the buildings. He questioned where it stops.

   Paul Gloss (N28 W22584 Foxwood Lane) stated he supports the Gun Club.

Commissioner Sullivan stated he supports the Gun Club, but he was concerned about what seemed to be no effort on the Gun Club's part to mitigate the noise. He wanted to see a study done, and he questioned if the berms could be increased.

Commissioner Linsmeier felt the buildings would serve as a megaphone, as the sound was bouncing off the inside. He was under the impression that the inside would have insulation to create some noise absorption.

A representative of the Gun Club noted there were no future plans beyond this at this point. The amount of shooting would not increase, and the hours of shooting would not change.

Commissioner Brown stated the plans show two buildings being built, but the report states only one building will be built. The Gun Club representative noted only one building would be built, but stated it was easier to apply for two at one time so they can move forward right away. Commissioner Brown was not comfortable approving two buildings at this time.

Ms. Wagner added a condition that the Gun Club must have a storm water management plan, as they have exceeded one acre of impervious area.

A motion was made and seconded (C. Brown, T. Janka) to approve one 5-stand shooting structure with stone on the sides and a storm water management plan for the Waukesha Gun Club. Motion Passed: 5-For, 0-Against.

4. Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit for Broken Bat Enterprises/Michael Helmuth for Property Located at N8 W22520 Johnson Drive Unit C for the Purpose of Operating an Indoor Baseball Training Facility (PWC 0961997009)

Mr. Fuchs stated this was a business looking to occupy an existing tenant space in the M-2 District. It is a 2,900 square foot space, and the hours would be Monday through Friday from 3:00pm to 10:00pm, and Saturday and Sunday from 8:00am to 8:00pm. Staff recommended approval.

Commissioner Brown questioned if the applicants have spoken to neighbors. She questioned if there was anything in the building to cut down on the noise of the baseballs being hit. The applicant noted there are cinder block walls so the neighbors would not hear any noise.

A motion was made and seconded (T. Janka, D. Linsmeier) to recommend approval of the Conditional Use Permit. Motion Passed: 5-For, 0-Against.

5. Discussion and Action and Public Hearing for Fox Run Development Partners, LLC to Rezone Property Located at N15 W22261 Watertown Road from Rs-1 Single-Family Residential and LC Lowland Conservancy to M-2 Limited Industrial for the Purpose of Constructing an Approximately 55,000 Square Foot Industrial Building (PWC 0960987)

Mr. Fuchs stated this was a 5.3-acre parcel, and the applicant was looking to construct a 48,000 square foot industrial building. The applicant will follow up with site and building plans once the rezoning is approved. There are two wetland areas onsite and those areas would be impacted. Staff recommended approval.

Ms. Wagner referred to the driveway of this property and the driveway directly adjacent, and she was

concerned that in the long run when land develops, there will be two major driveways right next to each other and she felt that was a bad idea. There will have to be some sort of combination of that intersection when the land develops.

Ms. Wagner noted that storm water management will be required for this project, as well as a wetland fill permit. They will also be requiring a bypass lane, as well as acceleration and deceleration lanes because of the trucking that occurs on the roadway and the trucking coming out of this facility. Ms. Wagner also mentioned they would require sewer and water connections for the building.

Chairman Bierce opened the public hearing at 6:34pm.

Andy Palec with Irgens Partners stated there was a fair amount of demand for industrial space in this area, especially for a smaller facility with a couple of tenants, or a build-to-suite. He noted there was a wetland area on the site, but he did not believe there would be a lot of impact to it.

Patrick Cullen (Prospect Avenue) stated he was representing Coleman Norris. He felt that with the impact to the wetlands, the water would push towards the Coleman Norris property. Mr. Cullen questioned where the pond would drain when it is over-filled. He also questioned how trucks would get their loads in and out with the spring weight limits.

Chairman Bierce closed the public hearing at 6:41pm.

Ms. Wagner then discussed the water runoff from the property and the impact of that water.

Chairman Bierce stated he did not have problem with the use, but he was unaware of the issues and was hesitant to rezone the property on the chance that something would happen. He wanted to see the site and building plans.

Commissioner Janka questioned how the trucks going in and out would be received by the public.

Commissioner Sullivan questioned if there were any plans to widen the bridge over I-94, so that the roads in the area can go to four lanes and there would not be such a bottleneck with traffic.

Commissioner Brown was not 100 percent sold on the rezoning without a better idea of what would be built there.

Commissioner Linsmeier stated he had no problem with the use, but there were too many questions about the access to Watertown Road and storm water management.

A motion was made and seconded (C. Brown, D. Linsmeier) to table the Rezoning. Motion Passed: 5-For, 0-Against.

6. Discussion and Action Regarding a Recommendation to the Common Council for a Comprehensive Master Plan Amendment to Change the Year 2050 Land Use/Transportation Plan Use Designation for the City of Pewaukee for Fox Run Development Partners, LLC for Property Located at N15 W22261 Watertown Road from Office Commercial and Flood Plains, Lowland & Upland Conservancy and Other Natural Areas to Manufacturing/Fabrication/Warehousing (PWC 0960987)

Action taken in item #5.

7. Adjournment

A motion was made and seconded (T. Janka, S. Sullivan) to adjourn the meeting at 7:04pm. Motion Passed: 5-For, 0-Against.

Respectfully Submitted,

Ami Hurd
Deputy Clerk

In attendance:
Mayor Steve Bierce, Alderwoman C. Brown, D. Kiser (arrived at 6:07pm), D. Linsmeier, S. Sullivan, and C. Wunder.

Also in attendance:
City Planner & Community Development Director N. Fuchs, Administrator S. Klein, Department of Public Works Director M. Wagner, and Deputy Clerk A. Hurd.

1. Call to Order and Pledge of Allegiance

   Chairman Bierce called the meeting to order at 6:00pm and requested everyone stand for the Pledge of Allegiance.

2. Discussion and Action Regarding Approval of the May 19, 2022, June 16, 2022, July 21, 2022 and August 18, 2022 meeting minutes

   A motion was made and seconded (C. Brown, D. Linsmeier) to approve the May 19, 2022, June 16, 2022, July 21, 2022, and August 18, 2022 meeting minutes. Motion Passed: 6-For, 0-Against.

3. Discussion and Action Regarding the Site and Building Plans for WE Energies for Property Located at W240 N2989 Pewaukee Road for the Purpose of Replacing the Existing Storage Yard Light Poles and Fixtures (PWC 0921999 & PWC 0921998)

   Mr. Fuchs stated WE Energies was proposing to replace the existing light poles because they are deteriorating. The lights will be in the same location and be the same height of 33 feet. They did receive a variance for the 33-foot height instead of the 20-foot height listed in the Zoning Code. The new lights will be LED lights.

   A motion was made and seconded (C. Brown, C. Wunder) to approve the Site and Building Plans for WE Energies. Motion Passed: 5-For, 0-Against, 1-Abstain (Sullivan).

4. Discussion and Action Regarding the Final Plat for Cardinal Meadow Subdivision (PWC 0928980)

   Mr. Fuchs stated this was a 24-lot subdivision along Bluemound Road. The lots meet the Rs-6 minimum standards, and it is in substantial conformance with the Preliminary Plat. Ms. Wagner added that approval should be contingent on the roads being paved.

   Commissioner Brown questioned if the speed limit should be lowered in this area. Ms. Wagner pointed out that Waukesha County did do a traffic study, but speed was not reviewed as part of this development. She noted that there would be acceleration and deceleration lanes, but no bypass lanes.

   A motion was made and seconded (S. Sullivan, C. Wunder) to approve the Final Plat for Cardinal Meadow Subdivision. Motion Passed: 6-For, 0-Against.

5. Discussion and Action Regarding Conceptual Review of a 50-Unit Self-Storage Facility Located at N29 W22817 Marjean Lane for Regal Development LLC (PWC 0914976)

Mr. Fuchs stated the property is about 0.88 acres and is currently zoned residential. The access to this development would be on Marjean Lane and there would be no need for cross access to Duplainville Road. The development would require a rezoning to the B-3 District, a conditional use, and site and building plans if the proposal moves forward.

The applicant discussed the views of the building as relates to the siding. He noted that the garage doors would not be visible from the perimeter. He stated it would be a self-storage facility where users would enter a code on the gate.

Commissioner Brown questioned the metal roof. It was noted that metal cannot be the primary building material. The applicant noted it could be an asphalt roof instead.

Commissioner Sullivan agreed that there needs to be windows on the outside so that it is not just a long wall. The applicant discussed his options regarding breaking the siding up a bit. He also mentioned running a fence around the asphalt areas of the property.

Ms. Wagner confirmed that there would be no water or sewer or gas for the property. She was concerned with the drainage down to the residential properties along Duplainville Road. Ms. Wagner wanted to make sure that having this additional impervious area would not create an issue with the residents. She felt some form of storm water management may be required.

No action was taken.

6. Adjournment

A motion was made and seconded (D. Kiser, C. Brown) to adjourn the meeting at 6:27pm. Motion Passed: 6-For, 0-Against.

Respectfully Submitted,

Ami Hurd
Deputy Clerk

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 3.

DATE: May 18, 2023

DEPARTMENT: Planning

PROVIDED BY: Nick Fuchs

SUBJECT:

Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit and Site and Building Plans for Quattro Development/Higher Ground Education for Property Located on Highfield Court for the Purpose of Constructing a Childcare Facility (PWC 0906994)

BACKGROUND:

The Conditional Use and Site and Building Plan Review applications were tabled at the March 16, 2023 Plan Commission meeting following concerns from neighbors. Concerns were expressed from residents of the Broken Hills subdivision regarding cars and customers of the Montessori school cutting through the neighborhood to get to their destination.

At that meeting, the applicant agreed to complete a Traffic Impact Analysis, which is attached for review.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

A motion to recommend approval of the Conditional Use Permit for the Guidepost Montessori School.

and

A motion to approve the Site and Building Plans for the Guidepost Montessori School, contingent upon the Common Council approval of the concurrently submitted Conditional Use Permit.

ATTACHMENTS:

Description

Quattro Development staff report 2.16.23
Higher Ground project narrative
Higher Ground response comments
Higher Ground civil & architectural plans
Higher Ground ROW release request
Higher Ground CSM
Quattro Development draft Conditional Use Permit 4.3.23

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 16, 2023

Date: February 9, 2023

Project Name: Guidepost Montessori Conditional Use and Site & Building Plan Review

Project Address/Tax Key No.: Highfield Court/PWC 0906994

Applicant: Quattro Development, LLC

Property Owner: KB Pewaukee, LLC

Current Zoning: B-6 Mixed Use Business

2050 Land Use Map Designation: Office/Commercial

Use of Surrounding Properties: Capitol Dr to the south, Highfield Ct to the north, a daycare to the east and bank to the west.

Project Description/Analysis:

The applicant, Quattro Development LLC, submitted a Conditional Use Application and Site & Building Plans for a proposed childcare facility on a mostly vacant lot located along Highfield Court and Capitol Drive between HWY 164 and Highfield Road. The subject property is zoned B-6 Mixed Use Business District and designated as Office/Commercial on the City's Year 2050 Land Use/Transportation Plan map.

Conditional Use

The proposed use is more specifically a Montessori educational facility. The applicant anticipates 15 full-time employees, with a maximum child occupancy of 152 children. The hours of operation are from 7am to 6pm Monday through Friday.

The B-6 District refers to the B-4 and B-5 districts regarding allowed uses. Educational and childcare facilities is not specifically listed as an allowed use; however, the B-4 and B-5 districts allow uses similar to those that are listed as Permitted Uses within each district. Those uses not listed are required to apply for Conditional Use Permits.

The B-4 District generally allows offices, banks, and studios for fine arts. The B-5 District generally allows auto sales and services, hotels and motels, and restaurants.

Staff finds that the proposed use is most similar to B-4 type uses and would not have any adverse impacts to the surrounding area. The B-4 District is intended to consist of less intensive uses in order to be compatible with neighborhood residential uses, such as the residential subdivision to the north and condominiums to the east. Staff contends that the proposed use meets this intent and fits in with adjacent uses.

Furthermore, the abutting use to the east is also a childcare facility. This property is zoned B-1, which similarly does not specifically allow childcare facilities but allows similar uses as those permitted in

the B-1 District via Conditional Use Permit. The B-1 District generally allows retail and office type uses.

Site Plan
The subject property is about 2-acres and the total site disturbance of the project will be a total of 1.67 acres. The project results in about 50% greenspace, which is in conformance with City standards.

The proposed development consists of a new 11,836 square foot, single-story building. Two large playground areas are proposed at the north and south ends of the childcare facility. A smaller play area is also proposed on the east side of the building.

A dumpster enclosure is located beside the driveway, slightly northwest of the northernmost playground area. A 6-foot wrought iron fence runs from the north side of the building down to the south side of the building and 4-foot white vinyl fencing is used to separate play areas.

Overall, the proposed development complies with B-6 District development standards.

Staff recommends that the playground areas, fencing, and any other accessory structure and use be located behind the building on the north side of the property. The applicant has indicated that due to the building configuration and operation of the Montessori program, the playground locations as proposed are integral to their use.

Access
This site abuts both Capitol Drive and Highfield Court, but is only accessible from Highfield Court.

Additionally, there is an existing and unimproved 45' right-of-way reservation depicted along the south side of the property, adjacent to Capitol Drive, shown on Certified Survey Map No. 10366. The applicant is requesting that this reservation be released by the City.

Staff has reviewed this request and does not have any objections. It is anticipated that a resolution releasing this reservation will be brought forward to the Common Council for their review and approval.

Landscaping
The applicant is proposing to install 19 Deciduous Trees, 5 Evergreen Trees, 31 Deciduous Shrubs, and 29 Evergreen Shrubs. There are at least three different species of Deciduous Trees, Deciduous Shrubs, and Evergreen Shrubs provided and two different species of Evergreen Trees.

The landscape plan focuses many plantings on screening the fencing and playground area along Capitol Drive. Plantings are also provided directly around the dumpster enclosure.

Parking
The site plan includes 25 new parking spaces, of which three are ADA required spaces.

Additionally, there is existing parking located on the northwest side of the site, which is shared with the bank and office building to the west. There is an existing cross parking easement with the property to the west.

Parking spaces are 10’ x 18’ (180 square feet), which is in compliance with Zoning Code standards.

Architecture
The proposed building exterior consists of Hardie shank siding, thin concrete brick veneer, thin stone veneer, and asphalt shingles. The dumpsters will be enclosed in a decorative masonry enclosure matching the building’s exterior materials.

The mechanicals are located in a recessed rooftop penthouse, which screens them from public view.

Signage
A wall sign and monument sign are anticipated and shown for reference only in the plans. All signage must comply with standards set forth in Section 17.0700 of the City’s Zoning Code and will require separate review and approval by the City Planner as well as a Sign Permit from the Building Services Department, prior to installation.

Utilities
Public sewer and water are available and will serve the development.

Final grading, erosion control and storm water management plans shall be approved by the Engineering Department, prior to any land disturbing activities.

Lighting
The Lighting Plan consists of three parking lot lights. Light levels are at 0.0 footcandles at the property lines. The peak height of lights is 18-feet, which complies with the 20-foot maximum height requirement of the Zoning Code. The Wattage is under 150 and not visible from adjacent streets or residential properties.

Bell Tower
The subject property was previously part of the property to the west. In 2005, the City approved Conditional Use Permit No. COP-05-10-3, which included this property, and contained the conditions listed below related to the construction of a bell tower. The bell tower was being proposed by the property owner at that time along with the Bell Tower Memorial non-profit organization.

1. The bank would build a bell tower according to the plans that were developed and brought to the Plan Commission at their November 2005 meeting.
2. The bell tower would be constructed prior to occupancy of the second office building proposed for the site.
3. The second office building proposed for the site would be constructed within three (3) years or by October of 2008.
4. If the bell tower is not built by October 2008, the City will build the tower according to the plans submitted on November 17, 2005, and assess the Foundation Bank for the cost of the tower, plus any administrative costs.

The applicant is requesting that these conditions be removed and that there be no requirement to construct a bell tower. It is staff’s understanding that the Bell Tower Memorial organization is continuing to fundraise to construct the bell tower within the Pewaukee Kiwanis Village Park, opposed

to this location. The bell that was to be utilized for the tower at this site was also sold or given to another organization.

The Conditional Use Permit has been drafted to include language stating that "*The applicant shall not be responsible for the construction of a bell tower as conditioned within Conditional Use Permit No. COP-05-10-3.*"

Recommendation:

A motion to recommend approval of the Conditional Use Permit for Quattro Development LLC to locate a childcare facility upon property bearing Tax Key No. PWC 0906994.

and

A motion to approve the Site & Building Plans for the construction of a childcare facility upon property bearing Tax Key No. PWC 0906994, subject to the conditions contained within this report.

February 3, 2023

Project Narrative

Project: Higher Ground Education
East of N35W23877 Highfield Ct
Pewaukee, WI 53072
Excel Project No: 2245520

Quattro Development, LLC (partnered with Higher Ground Education) is requesting conditional use permit review and approval for a new childcare facility development located on parcel PWC 0906994, just east of N35W23877 Highfield Ct in the City of Pewaukee. The property is zoned B-6 Mixed Use Business and the proposed use requires a conditional use in this district. The existing site is vacant and undeveloped. Higher Ground Education provides Montessori-powered educational offerings.

The proposed project consists of a new 11,705 SF single story childcare facility. The existing site is 2 acres and the total site disturbance for the project will total 1.67 acres. The site can be accessed via the existing shared drive from Highfield Ct. An existing access easement is in place along with a cross parking easement. The proposed new parking will consist of 38 new stalls. Traffic access will be consistent with the existing facility to the west of the proposed development as the existing shared access drive will be utilized. Some new parking stalls will access directly off the existing driveway with the remaining being placed in a parking lot extension to the south. Truck unloading and deliveries will be at a minimum and when needed, the site drive west of the building will be utilized. The playground areas are strategically located in conjunction with the floor plan and provide ample dedicated area for outdoor play/activities.

Stormwater management for this property was accounted for by the adjacent/neighboring parent development to the west of the subject property. A stormwater wet pond is located west of the existing bank/office complex. Proposed stormwater from the development will surface drain consistent with the original stormwater plan to the neighboring stormwater facility. Final engineering documents will be provided to as-built and model the existing stormwater facility and show conformance with current stormwater management ordinances. Sanitary and water utilities will connect to existing public infrastructure as shown on the proposed Utility Plan.

Exterior materials as represented in the attached colored elevations and rendering will consist of the following: Hardie board lap/vertical siding, Hardie shake siding, thin stone veneer, and asphalt shingles. Refuse and recycling dumpsters will be enclosed in a decorative masonry enclosure to match the building's exterior materials. The enclosure will be located in the north parking field, aligning with perpendicular drive isle for access.

Landscaping will be provided in accordance with the City ordinance, in a fashion which ensures species resiliency and complimentary aesthetics. Site lighting will meet the City ordinance in a fashion that provides appropriate foot candles for safety, cut-off fixtures for zero up-lighting, and a decorative style that compliments the development and building architecture.

The proposed daycare/childcare center will have 15 full-time employees, and 0 part-time employees. The largest shift will be all 15 full-time employees. Maximum child occupancy will be 152. The daycare will be in operation from 7:00 a.m. to 6:00 p.m. during weekdays. No hazardous products or chemicals are located on the property nor is there outside storage. The estimated project value is $3,000,000 and an approximate start date is Spring of 2023.

In conjunction with the proposed development project, it is requested to remove the bell tower requirement that is tied to the title of the subject property. The bell tower is not proposed for this project and will not be provided.

February 3, 2023

City of Pewaukee
Attn: Nick Fuchs
W240N3065 Pewaukee Road
Pewaukee, WI 53072

Re: Quattro Development - Guidepost Montessori Conditional Use and Site & Building Plan Review

Dear Mr. Fuchs,

This letter is in response to the staff comments dated January 20, 2023.

General Comments

1. There appears to be many inconsistencies on page C1.1 between the labels and arrows on the site plan and the Site Plan Keynotes. Below are several examples. Please double check these items and revise accordingly.
   a. 25 is listed as a flagpole yet no flagpole label on the plan.
      Excel Response: Number 25 has been removed from the Site Plan Keynotes as there is no proposed flagpole.

   b. 7 is listed as dumpster pad/apron concrete yet no dumpster pan/apron concrete label is on the plan.
      Excel Response: The mentioned label has been adjusted on the site plan.

   c. 29, 30, & 31 are included within the middle of the building with their arrows not directed at any element on the plan.
      Excel Response: The mentioned labels have been adjusted on the site plan.

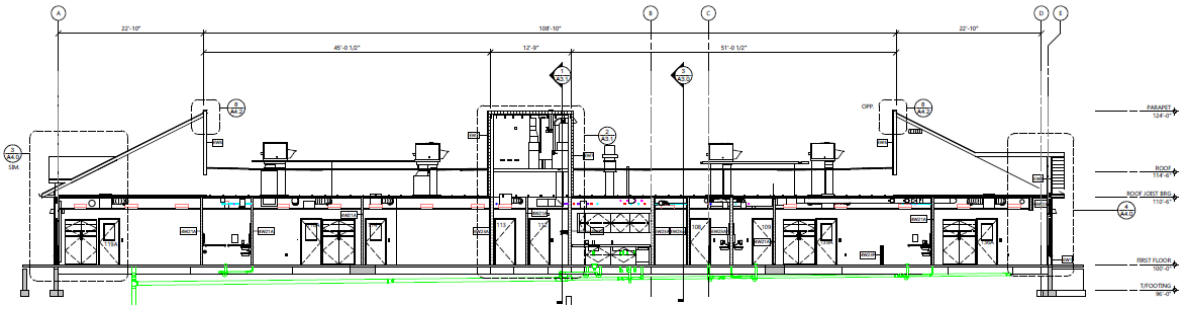
   d. 28 is listed as traffic arrows yet they are labeled around the playgrounds. Why are there traffic arrows around the playgrounds?
      Excel Response: The traffic arrows designate the direction of travel around the playgrounds for a tricycle loop.

2. What is directly abutting the north playground to the east?
   Excel Response: This area is designated as an outdoor seating area.

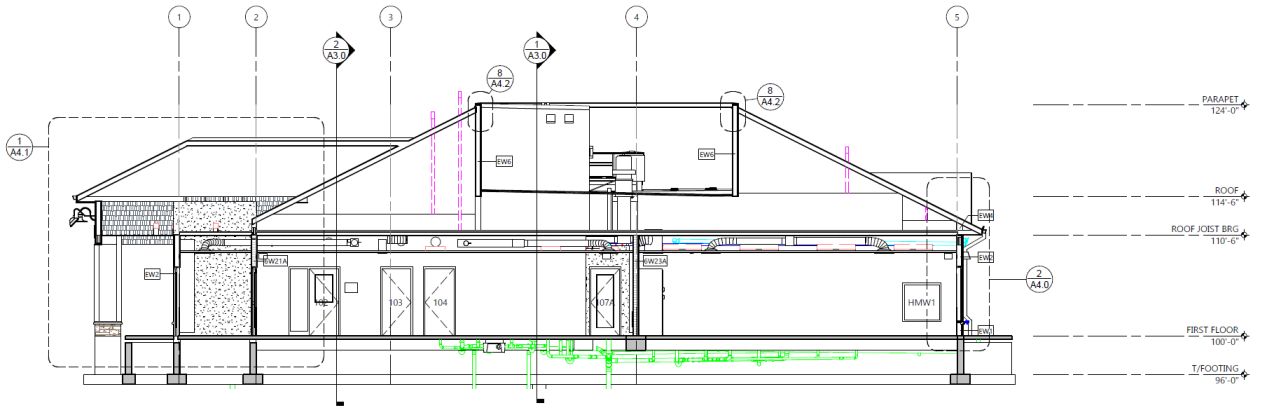
3. Was the poured rubber playground surface included in the impervious surface calculations?
   Excel Response: The poured rubber playground surface was included in the impervious surface calculations.

4. Where are mechanicals located? How are these screened?
   Excel Response: The mechanicals are located in a rooftop penthouse recessed out of view.

100 Camelot Drive • Fond du Lac, WI 54935
920.926.9800 • www.excelengineer.com



BUILDING SECTION



3 A3.0 BUILDING SECTION
SCALE: 1/8" = 1'-0"

Site Plan Comments

1. Please illustrate the 30-foot parking and loading setback along the south side of the property adjacent to Capitol Drive and remove any portion of the parking lot encroaching into that setback.
   Excel Response: The appropriate adjustments have been made on the site plan.

2. Staff recommends exploring ways to reconfigure the building and site layout to address the comments and recommendations below.
   a. It is recommended that the playground areas, fencing, and majority of parking be located behind the building.
      Excel Response: The site and building have been situated to maintain the intent of stormwater management that was set up at the time of the bank development. Modifications after discussions with staff are implemented in the revised site plans. The building layout cannot change and is specific to the Montessori learning with associated break-out playground areas around the building perimeter.

   b. It is recommended to revise the parking layout to avoid cars having to back out into the main drive aisle. Parking could potentially be configured to follow the layout of the adjacent parking to the west, which extends onto this property.
      Excel Response: Several parking stalls on the north side of the proposed parking lot have been removed to accommodate this. The site plan modifications were discussed with staff, the shared parking will be used for employee parking.

c. Relocate the dumpster enclosure where it can be better screened by landscaping.
Excel Response: The dumpster enclosure has been moved further to the east of its previous position to include landscaping around it.

d. It is recommended to not have the metal doors and service equipment facing Capitol Drive.
Excel Response: Doors have been removed from the south side of the building facing Capitol Drive.

e. Will there be a lot of drop off and pick up occurring onsite? If so, the site plan should be revised to accommodate that better.
Excel Response: Drop off and pick will be in the stalls immediately west of the building. Give the age group of the facility, parents will park and escort children into the building. A "drop off" scenario typical to schools is not applicable for this facility.

Architecture Comments

1. Consider incorporating additional masonry on the elevation facing Capitol Drive as well as additional elements to provide more variation in the footprint and roofline of the building. Materials and quality should match that of the adjacent buildings.
Excel Response: The Capitol Drive elevations have been updated to address this comment.

Parking Comments

1. On page C1.1 it states that three ADA spaces are required yet two ADA spaces are provided. Please revise and provide the appropriate number of ADA accessible parking spaces.
Excel Response: Three ADA spaces have been provided on the site plan.

Landscaping Comments

1. Staff suggests adding additional plantings adjacent to the playground areas. These may be more sporadic as the intent is not to necessarily require these areas to be fully screened.
Excel Response: Additional plantings have been included on the south and north side of the site plan.

2. As previously discussed, there is a requirement that a bell tower be constructed on this property. As part of the Conditional Use, please revise the project narrative to include a specific request to remove this requirement, assuming the bell tower is not being proposed as part of this development.
Excel Response: The CUP project narrative has been updated to remove the bell tower requirement.

Signage Comments

1. Please be aware that signage will require separate review and approval by the City Planner as well as a Sign Permit from the Building Services Department prior to installation.
Excel Response: The appropriate accommodations will be made.

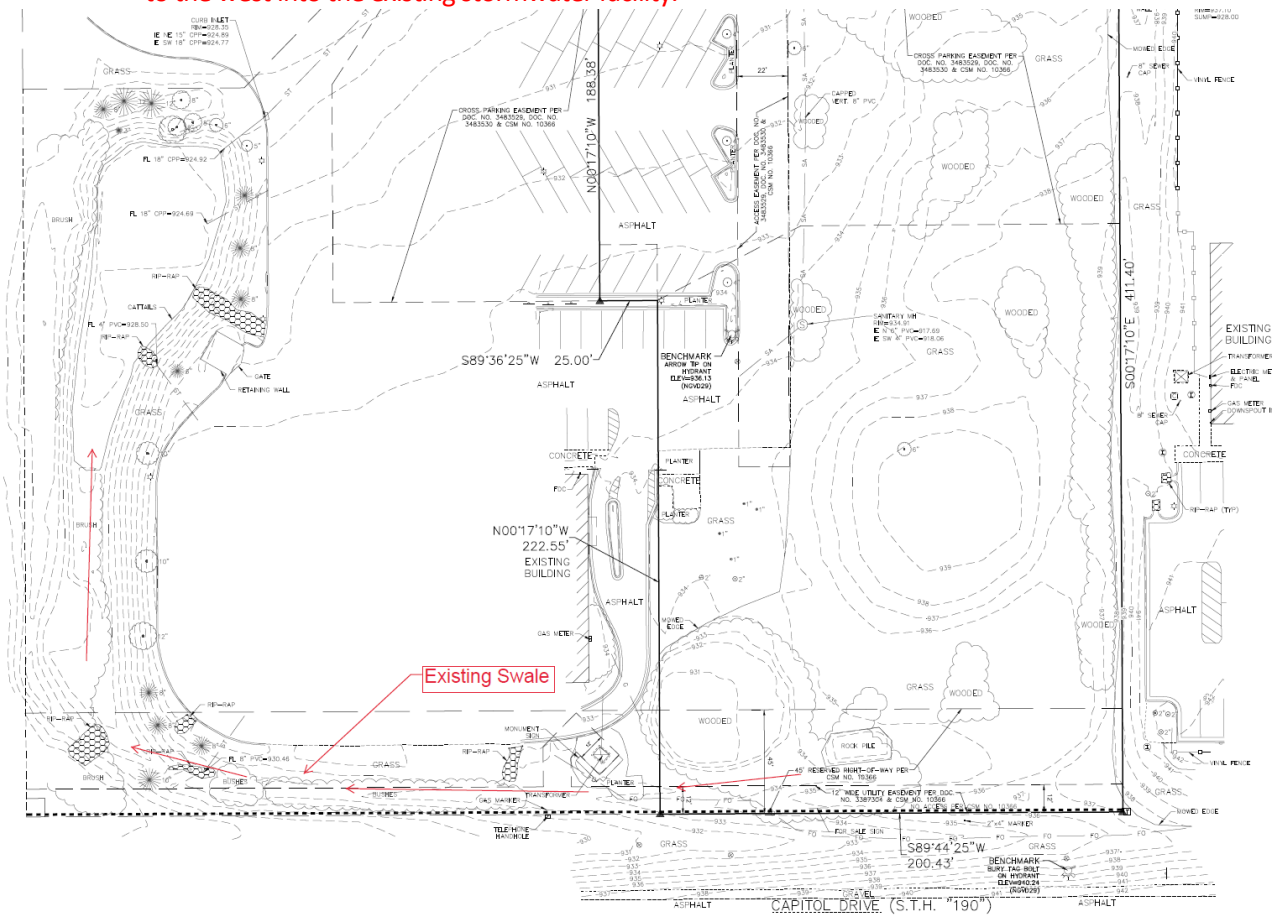
2. Also note that per section 17.0706(c) a ground sign located within 660 feet of a residential zoning district boundary shall not be illuminated during the seven-hour period beginning at

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eleven (11) PM and ending at six (6) AM.
Excel Response: The appropriate accommodations will be made.

Engineering Department Comments

1. The project narrative outlines that the existing basin on the adjacent property will be used to address stormwater requirements. Below are comments relating to this strategy.
   a. A large portion of the proposed site appears to drain to the southwest corner of the site into an existing drainage swale. This drainage swale does not lead to the existing stormwater pond based on existing contours.
   Excel Response: There is an on-site drainage swale north of the R/W line that does direct runoff to the west into the existing stormwater facility.



   b. This stormwater facility is off-site. Documentation of agreements with adjacent landowner stating that this development can utilize the existing stormwater facility must be provided to the City. Note that it must also be shown that the existing facility can handle the additional flow.
   Excel Response: Understood.

   c. The north portion of the site is planned to sheet flow towards the neighbor's parking lot. Agreements must be provided stating that the neighbor is aware of this design, approves of it, and won't change their site in a way that would restrict the sheet flow. Calculations

shall be provided that show the existing conveyance systems (mostly storm sewer) are adequate for the additional flow.
Excel Response: Understood.

2. There is currently no stormwater maintenance agreement for the existing stormwater facilities. A stormwater maintenance agreement must be provided and signed by both the developer and the owner of the existing stormwater facilities.
Excel Response: Understood.

3. The proposed plan shows the development connecting to the existing sanitary lateral for the adjacent property which connects to a holding tank. Please note the requirements below:
   a. An easement will need to be created to accommodate the existing sanitary lateral.
   Excel Response: An easement will be provided.

   b. This service is currently connected to a holding bank. It will need to be connected to the sanitary sewer system during construction.
   Excel Response: Understood, a connection to the public sanitary system will be provided.

   c. Each lot will need to have a separate sampling manhole.
   Excel Response: Understood, sampling manholes will be provided.

The submittal documents have been revised per the comments above. Please accept for review and approval. Please let me know if you have any comments, questions, or need additional information.

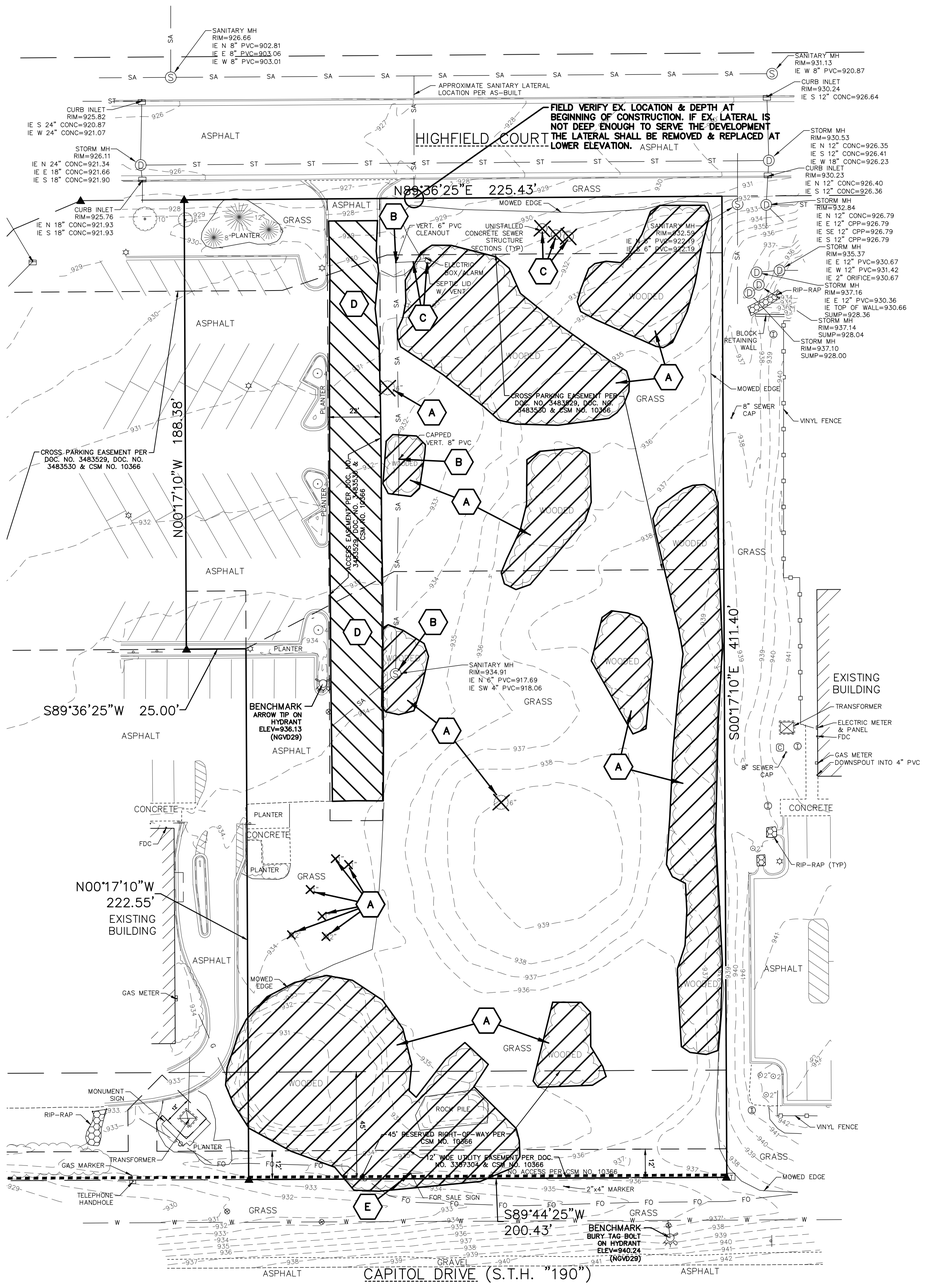
Sincerely,

Excel Engineering, Inc.



Grant Duchac, P.E.
Project Manager

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SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

DEMOLITION PLAN KEYNOTES

A	CLEAR & GRUB TREES/BRUSH
B	PROTECT SANITARY ITEMS
C	REMOVE SANITARY ITEMS. VERIFY INACTIVE PRIOR TO REMOVAL.
D	REMOVE ASPHALT
E	REMOVE SIGN

X(X) IDENTIFICATION: KEYNOTE ITEM(QUANTITY) – IF NO () = QUANTITY IS 1

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL EXISTING SITE AND DEMOLITION PLAN

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COLLABORATION
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PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
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PROFESSIONAL SEAL

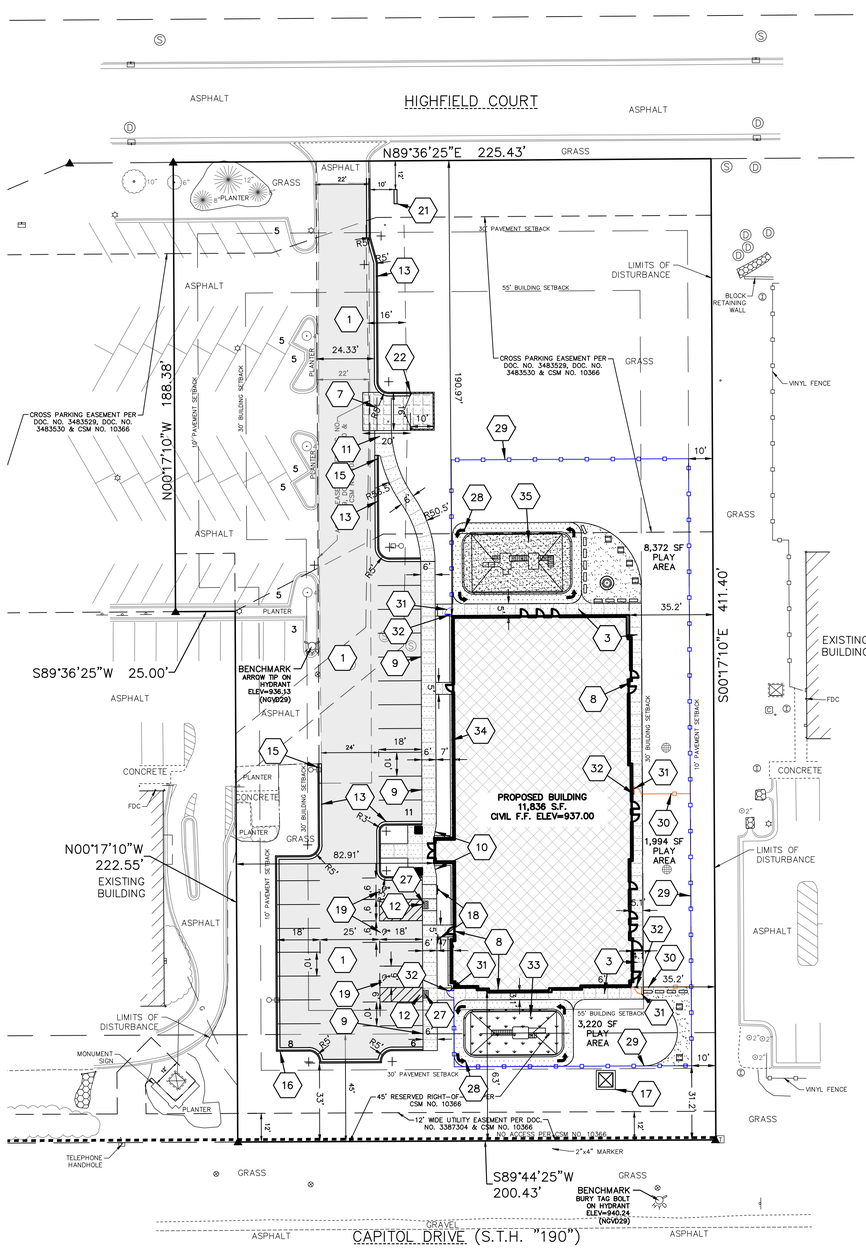
PRELIMINARY DATES
DEC. 12, 2022
JAN. 4, 2023
FEB. 3, 2023

NOT FOR CONSTRUCTION

JOB NUMBER
2245520

SHEET NUMBER
C1.0

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SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

EXISTING SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	2.00	87,120	
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.00	0	0.0%
TOTAL IMPERVIOUS	0.00	0	0.0%
LANDSCAPE/ OPEN SPACE	2.00	87,120	100.0%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	2.00	87,120	
BUILDING FLOOR AREA	0.27	11,836	13.6%
PAVEMENT (ASP. & CONC.)	0.73	31,783	36.5%
TOTAL IMPERVIOUS	1.00	43,619	50.1%
LANDSCAPE/ OPEN SPACE	1.00	43,501	49.9%

SITE INFORMATION:

LEGAL DESCRIPTION: Lot 2 of Certified Survey Map Number 10366 filed in Volume 98 of Certified Survey Maps on Page 203 as Document Number 3472291;

PROPERTY AREA: AREA = 87,120 S.F. (2.00 ACRES).

EXISTING ZONING: B-6 MIXED USE BUSINESS

PROPOSED ZONING: B-6 MIXED USE BUSINESS

PROPOSED USE: DAYCARE/CHILDCARE FACILITY

AREA OF SITE DISTURBANCE: 72,650 S.F. (1.67 ACRES)

SETBACKS: BUILDING: FRONT = 55'
SIDE = 30'
REAR = 55'
PAVEMENT: FRONT = 30'
SIDE = 10'
REAR = 10'

PROPOSED BUILDING HEIGHT: 25' (MAX. HEIGHT ALLOWED: 45')

PARKING REQUIRED: 1 SPACE PER 2 EMPLOYEES (8 SPACES REQ.)

PARKING PROVIDED: 25 SPACES (3 H.C. ACCESSIBLE) & 33 SHARED STALLS

HANDICAP STALLS REQUIRED: 3, HANDICAP STALLS PROVIDED: 3

HOURS OF OPERATION: 7:00 A.M. – 6:00 P.M.

BUILDING OCCUPANCY CLASSIFICATION = E

CLASS OF BUILDING CONSTRUCTION = 5B

LANDSCAPE REQUIREMENTS: MIN. LANDSCAPE SURFACE RATIO: 40%
MAXIMUM IMPERVIOUS SURFACE: 60%
MAXIMUM LOT COVERAGE – BUILDING ONLY: 35%

SITE PLAN KEYNOTES

1	STANDARD ASPHALT SECTION (TYP.)
3	CONCRETE SIDEWALK (TYP.)
7	DUMPSTER PAD/APRON CONCRETE (TYP)
8	CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR DETAILS.
9	RAISED WALK (TYP.)
10	TRANSITION WALK FROM 5' TO 6' WIDE
11	WALK RAMP
12	ADA RAMP
13	18" CURB & GUTTER (TYP.)
15	CURB TAPER (TYP.)
16	CURB CUT (TYP.)
17	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
18	HANDICAP SIGN (TYP.)
19	HANDICAP STALL & STRIPING PER STATE CODES.
21	MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
22	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
24	STOP SIGN (TYP.)
27	DETECTABLE WARNING PLATE
28	TRAFFIC ARROWS (TYP.)
29	6' TALL WROUGHT IRON FENCE
30	4' TALL WHITE VINYL FENCE
31	FENCE GATE
32	PANIC HARDWARE
33	POURED RUBBER PLAYGROUND SURFACE OVER 4–6" CLEAR STONE AGGREGATE BASE (FOLLOW DESIGN SPECS. BY SUPPLIER)
34	12" WIDE CONCRETE STRIP ALONG WEST FOUNDATION
35	WOOD FIBER SURFACE BY PLAYGROUND VENDOR

NORTH

1" = 30'
30' 0 30' 60'
SCALE FEET

CIVIL SITE PLAN

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COLLABORATION
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PROJECT INFORMATION

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PROFESSIONAL SEAL

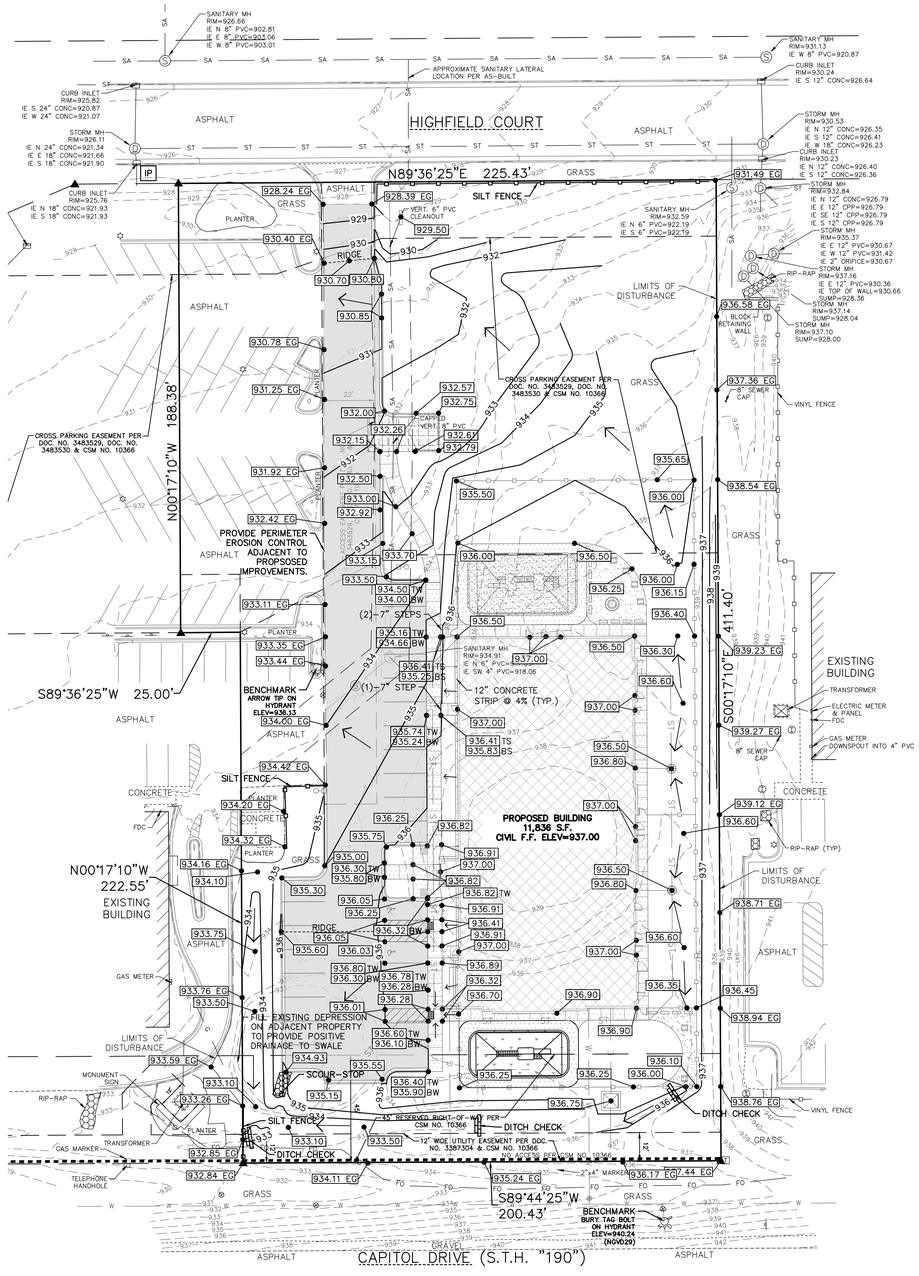
PRELIMINARY DATES
NOV. 29, 2022
DEC. 12, 2022
JAN. 4, 2023
FEB. 3, 2023

NOT FOR CONSTRUCTION

JOB NUMBER
2245520

SHEET NUMBER
C1.1

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SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

NOTES:

1. HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
2. ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.

STORMWATER NOTE:

SITE STORMWATER DRAINS TO EXISTING STORMWATER FACILITY ON NEIGHBORING PROPERTY.

IP

INLET PROTECTION NOTE:

CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL GRADING AND EROSION CONTROL PLAN

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PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
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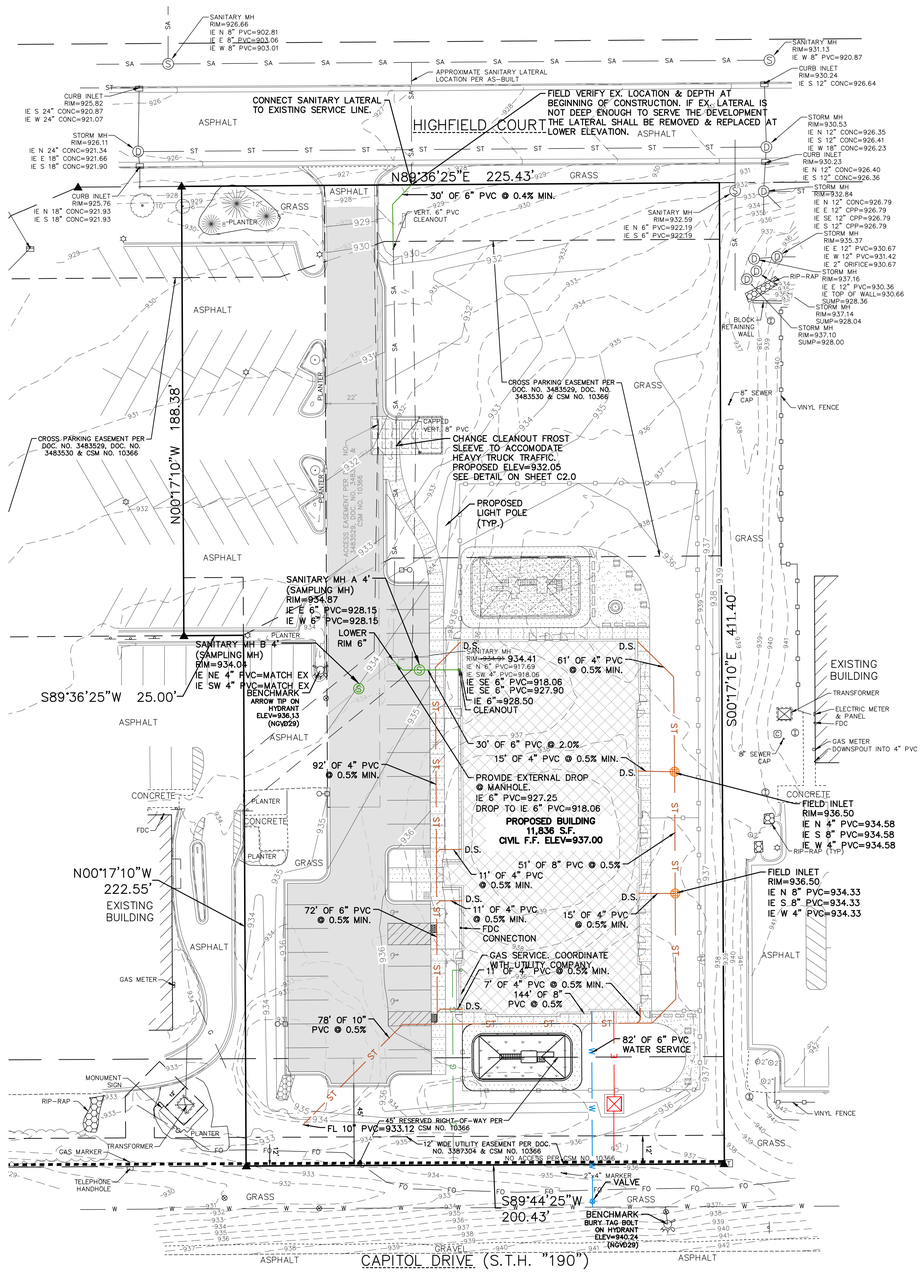
PRELIMINARY DATES
DEC. 12, 2022
JAN. 4, 2023
FEB. 3, 2023

NOT FOR CONSTRUCTION

JOB NUMBER
2245520

SHEET NUMBER
C1.2

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SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

DOWNSPOUT NOTE:

DS = DENOTES DOWNSPOUT TO GRADE LOCATIONS. PROVIDE SPLASH BLOCKS AT ALL DS TO GRADE LOCATIONS. SEE ARCH PLANS FOR FINAL LOCATIONS.

CLEANOUT NOTE:

CO = DENOTES LOCATIONS WHERE CONTRACTOR SHALL INSTALL CLEANOUTS, SEE C0.1 FOR SPECIFICATION.

NORTH

1" = 30'

SCALE: 30' 0 30' 60' FEET

CIVIL UTILITY PLAN

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COLLABORATION

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PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:

QUATTRO DEVELOPMENT

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PROFESSIONAL SEAL

PRELIMINARY DATES

DEC. 12, 2022
JAN. 4, 2023
FEB. 3, 2023

NOT FOR CONSTRUCTION

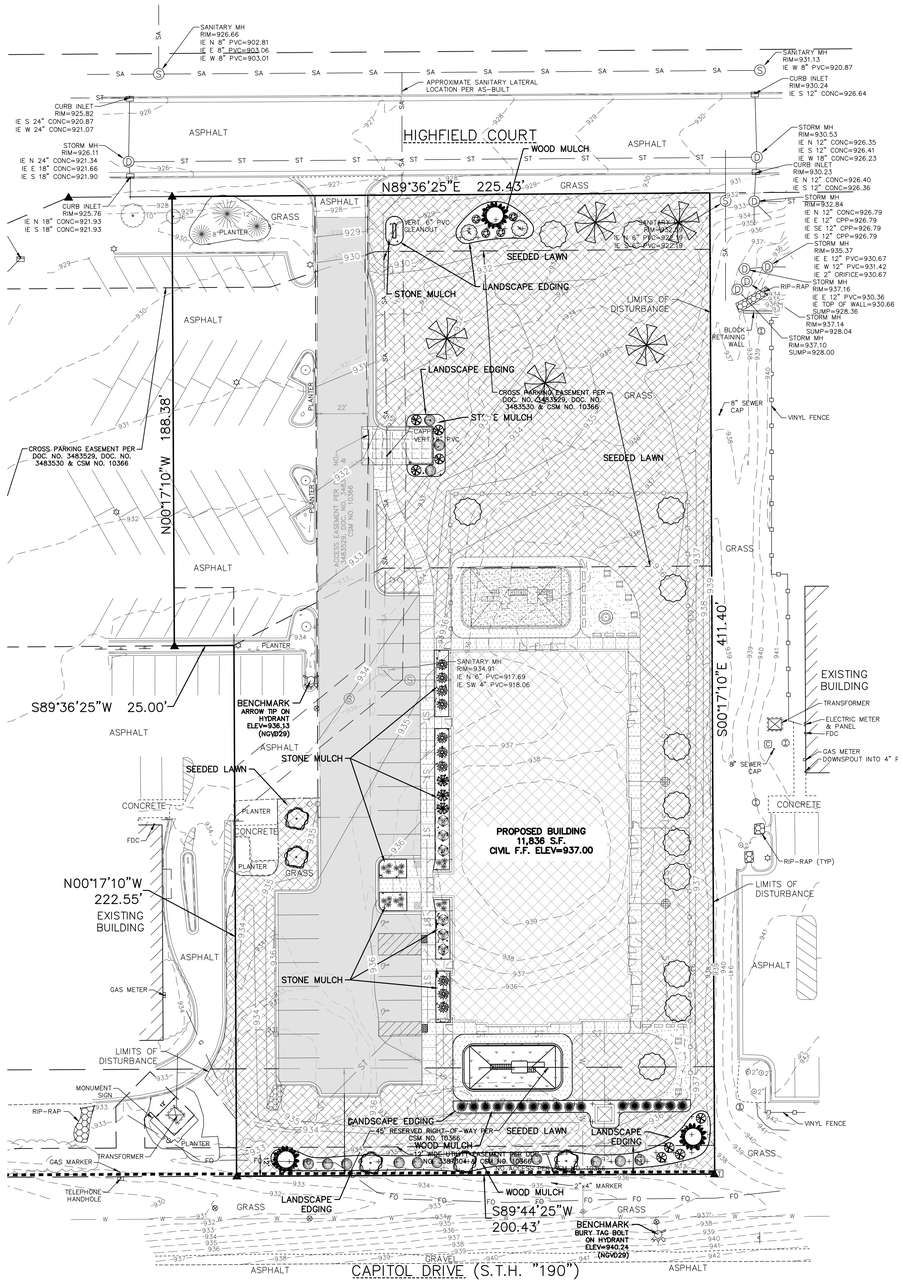
JOB NUMBER

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SHEET NUMBER

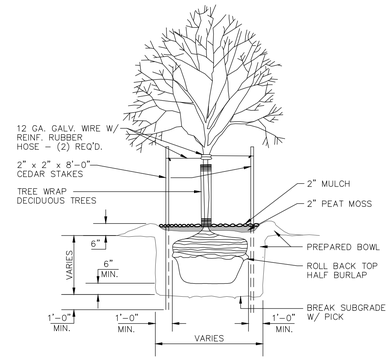
C1.3

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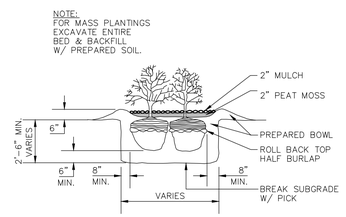


Page 18 of 136

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS



TREE PLANTING DETAIL
NO SCALE



SHRUB PLANTING DETAIL
NO SCALE

LANDSCAPING PLANTING SCHEDULE

SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY	MATURE SIZE
	DECIDUOUS TREES				
	Jack Flowering Pear	Pyrus calleryana 'Jaczam'	2"	5	15–20'
	Redmond Linden	Tilia americana	2"	9	25'–30'
	Sugar Maple	Acer saccharum	3"	5	30–45'
	EVERGREEN TREES				
	Arborvitae – Nigra	Thuja occidentalis 'Nigra'	2'	2	4'–10'
	Colorado Blue Spruce	Picea pungens	4'	3	25'
	DECIDUOUS SHRUBS				
	Emerald Mound Honeysuckle	Lonicera x xylosteum 'Emerald Mound'	15"–18"	10	4'–6'
	Sunrise Forsythia	Forsythia 'Sunrise'	18"–24"	6	5'
	Arrowwood Viburnun	Viburnum dentatum	30"–36"	15	6'–8'
	EVERGREEN SHRUBS				
	Taunton Yew	Tauntonii	24"	4	5'–6'
	Techny Arborvitae	Thuja occidentalis	42"–48"	8	4'–6'
	Dwarf Alberta Spruce	Picea glauca 'Conica'	2'	17	6'
	PERENNIALS				18"–24"
	Purple Dome Aster	Aster novae–angliae 'Purple Dome'	1 gal pot	6	12"–24"
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	3	

NORTH

1"= 30' SCALE 30' 0 30' 60' FEET

CIVIL LANDSCAPE AND RESTORATION PLAN

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PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
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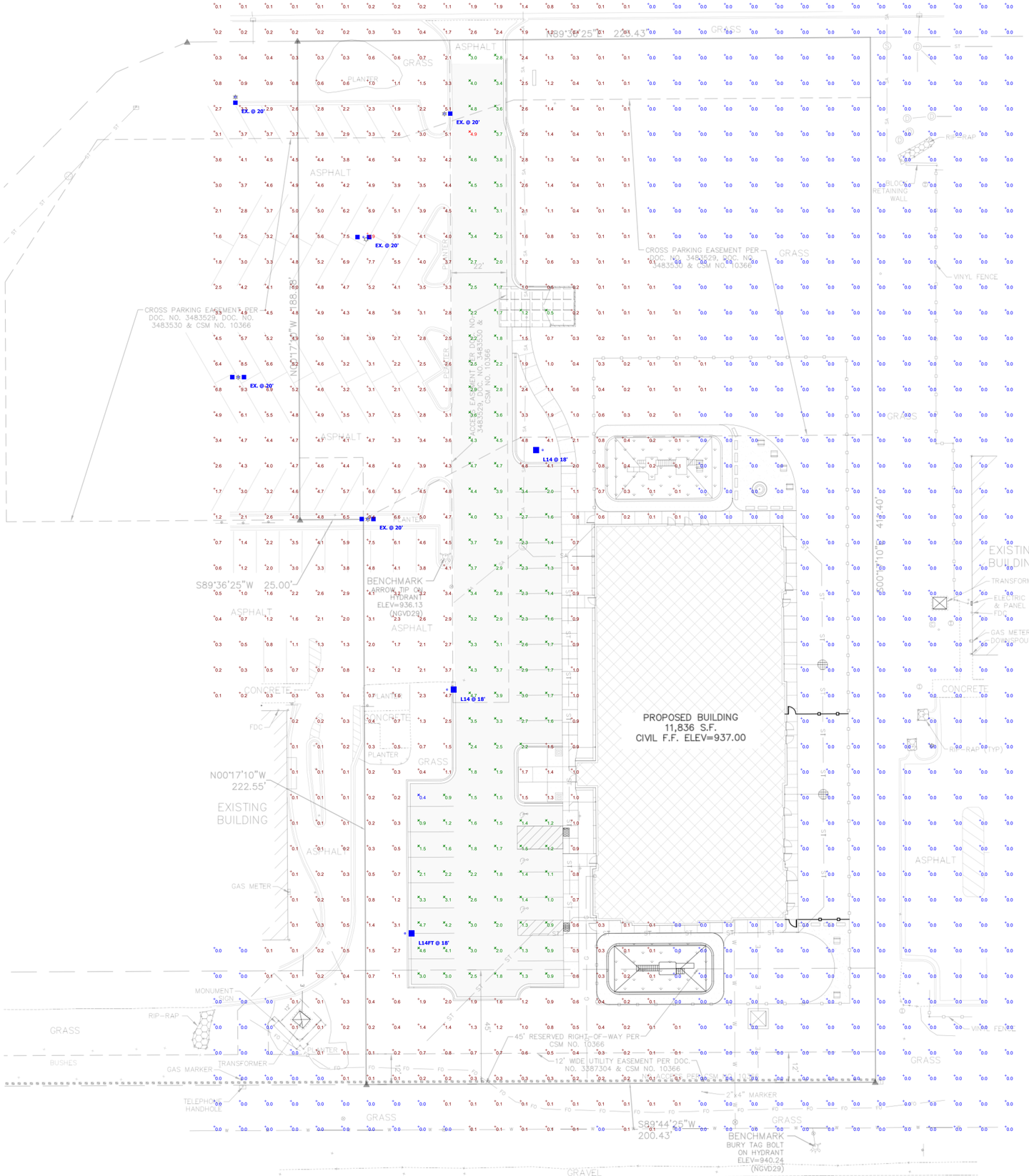
PRELIMINARY DATES
DEC. 12, 2022
DEC. 16, 2022
JAN. 4, 2023
FEB. 3, 2023

NOT FOR CONSTRUCTION

JOB NUMBER
2245520

SHEET NUMBER
C1.4

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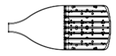


D-Series Size 1
LED Area Luminaire

d^series

Specifications

EPA:	0.69 ft² (0.06 m²)
Length:	32.71" (83.1 cm)
Width:	14.26" (36.2 cm)
Height H1:	7.88" (20.0 cm)
Height H2:	2.23" (5.7 cm)
Weight:	34 lbs (15.4kg)





Catalog Number
Notes
Type

Note: DLC may not feature every version of this product listed on this ordering guide.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

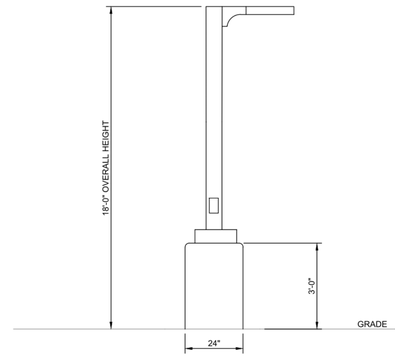
Series	LEDs	Color temperature[1]	Color Rendering Index[1]	Distribution		Voltage	Mounting
DSX1 LED	**Forward optics** P1 P6 P2 P7 P3 P8 P4 P9 P5 **Rotated optics** P10[2] P12[2] P11[2] P13[2]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare[3] T4M Type IV medium T4LG Type IV low glare[3] TFTM Forward Throw medium T5M Type V medium T5LG Type V low glare[3] T5W Type V wide BLC3 Type III backlight control[3] BLC4 Type IV backlight control[3] LCCO Left corner cutoff[3] RCCO Right corner cutoff[3]	MVOLT (120V-277V)[4] HVOLT (347V-480V)[4,5] XVOLT (277V - 480V)[4,5]	**Shipped included** SPA Square pole mounting (RK drilling) RPA Round pole mounting (RK drilling) SPA5 Square pole mounting (5 drilling) RPA5 Round pole mounting (5 drilling) SPANR Square narrow pole mounting (RK drilling) WBA Wall bracket[6]

Control options		Other options		Finish (required)	
Shipped installed NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc.[7,8,9,10] PIR High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc.[7,8,9,10] PER NEMA twist-lock receptacle only (controls ordered separately)[11] PER5 Five-pin receptacle only (controls ordered separately)[11,12]	PER7 Seven-pin receptacle only (controls ordered separately)[11,12] FAO Field adjustable output[7,13] BL30 Bi-level switched dimming, 30%[9,14] BL50 Bi-level switched dimming, 50%[9,14] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[15] DS Dual switching[9,14,16]	**Shipped installed** SPD20KV 20kV surge protection HS Houseside shield (black finish standard)[17] L90 Left rotated optics[7] R90 Right rotated optics[7] CCE Coastal Construction[18] **Shipped separately** EGS External Glare Shield (reversible; field install required, matches housing finish) BS Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white	

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

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DSX1 LED
Rev. 11/10/22
Page 1 of 10



LIGHT POLE DETAIL

NO SCALE

Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Wattage
	L14	2	Lithonia Lighting	DSX1 LED P5 40K 80CRI T4M	D-Series Size 1 Area Luminaire P5 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	16418	0.9	138.16	
	L14FT	1	Lithonia Lighting	DSX1 LED P5 40K 80CRI TFTM	D-Series Size 1 Area Luminaire P5 Performance Package 4000K CCT 80 CRI Forward Throw	1	16531	0.9	138.16	

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.1 fc	9.9 fc	0.0 fc	N/A	N/A
PARKING LOT	X	2.6 fc	4.9 fc	0.4 fc	12.3:1	6.5:1

NORTH

1"= 20' SCALE 20' 0 20' 40' FEET

CIVIL SITE PHOTOMETRIC PLAN & DETAILS

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COLLABORATION

Quattro Development

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
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23877 HIGHFIELD COURT • PEWAUKEE, WI 53072

PROFESSIONAL SEAL

PRELIMINARY DATES

SHEET ISSUE

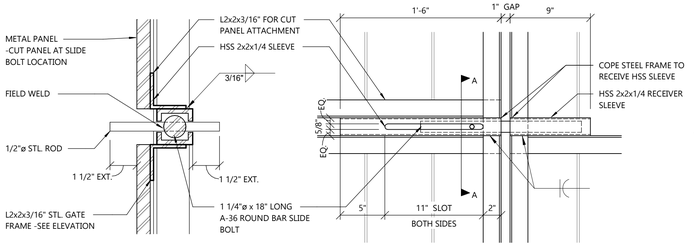
REVISIONS

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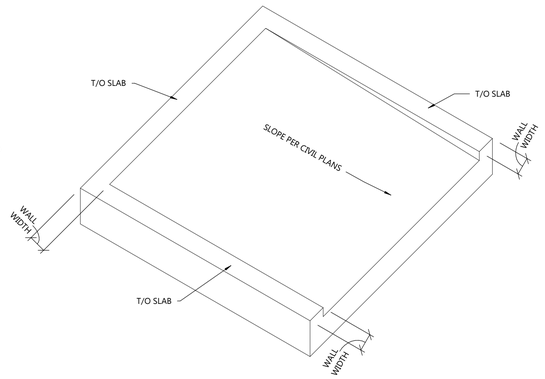
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2245520

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C3.1

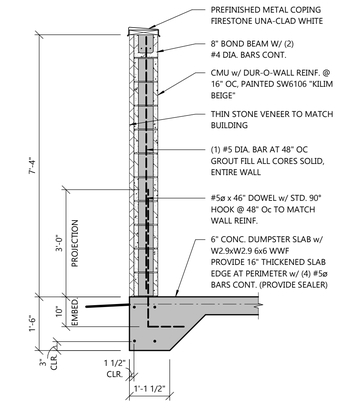
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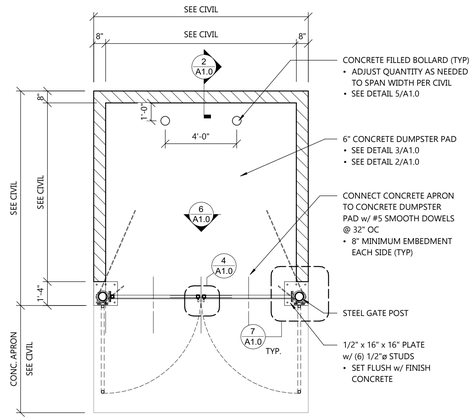
4 A1.0 GATE SLIDE BOLT
SCALE: 1 1/2" = 1'-0"



3 A1.0 DUMPSTER PAD DETAIL
NOT TO SCALE

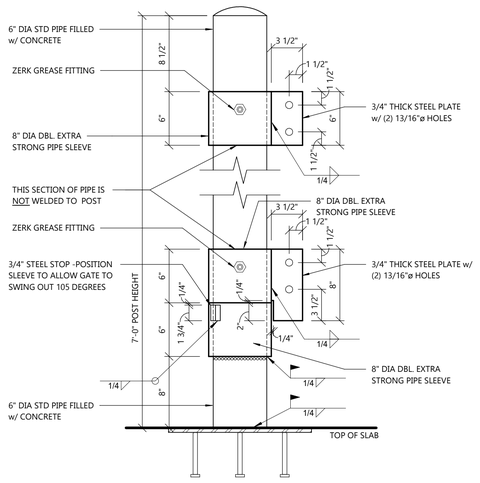


2 A1.0 DUMPSTER WALL SECTION
SCALE: 1/2" = 1'-0"

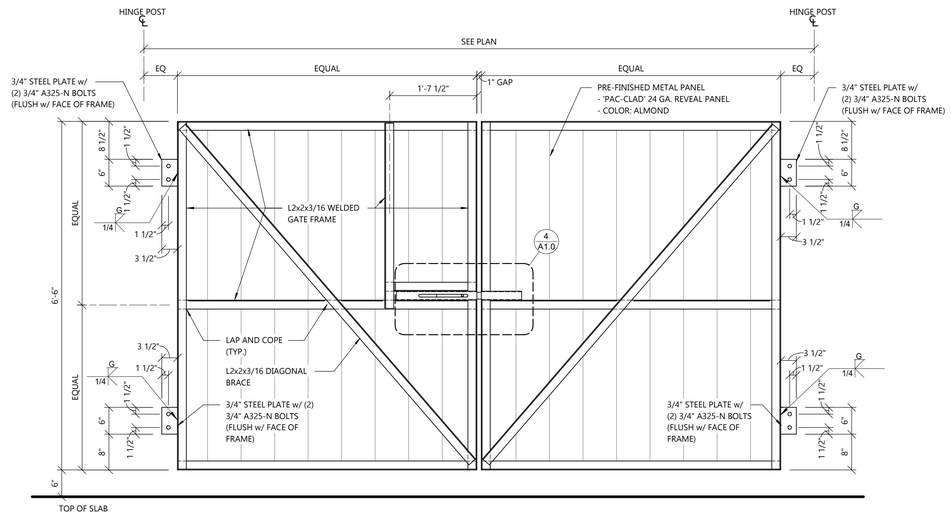


1 A1.0 DUMPSTER PLAN
SCALE: 1/4" = 1'-0"

ALL EXPOSED METAL SURFACES ON DUMPSTER ENCLOSURE TO RECEIVE ONE COAT RUST-INHIBITING PRIMER AND (2) COATS PAINT: SW6106 "KILIM BEIGE" (UNLESS NOTED OTHERWISE)

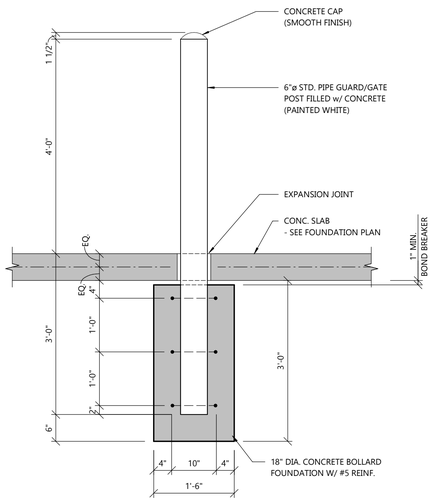


7 A1.0 GATE HINGE DETAIL
SCALE: 1 1/2" = 1'-0"



INSIDE ELEVATION

6 A1.0 DUMPSTER GATE ELEVATION
NOT TO SCALE



5 A1.0 BOLLARD DETAIL
SCALE: 3/4" = 1'-0"

ARCHITECTURAL DUMPSTER ENCLOSURE DETAILS

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION

Quattro Development

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
N35 W23824 CAPTIOL DRIVE • PEWAUKEE, WI

PROFESSIONAL SEAL

SHEET DATES
SHEET ISSUE DEC. 19, 2022
REVISIONS

JOB NUMBER
2245520

SHEET NUMBER
A1.0

2022 © EXCEL ENGINEERING, INC.

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12/28/2022 7:56:54 AM

GENERAL NOTES

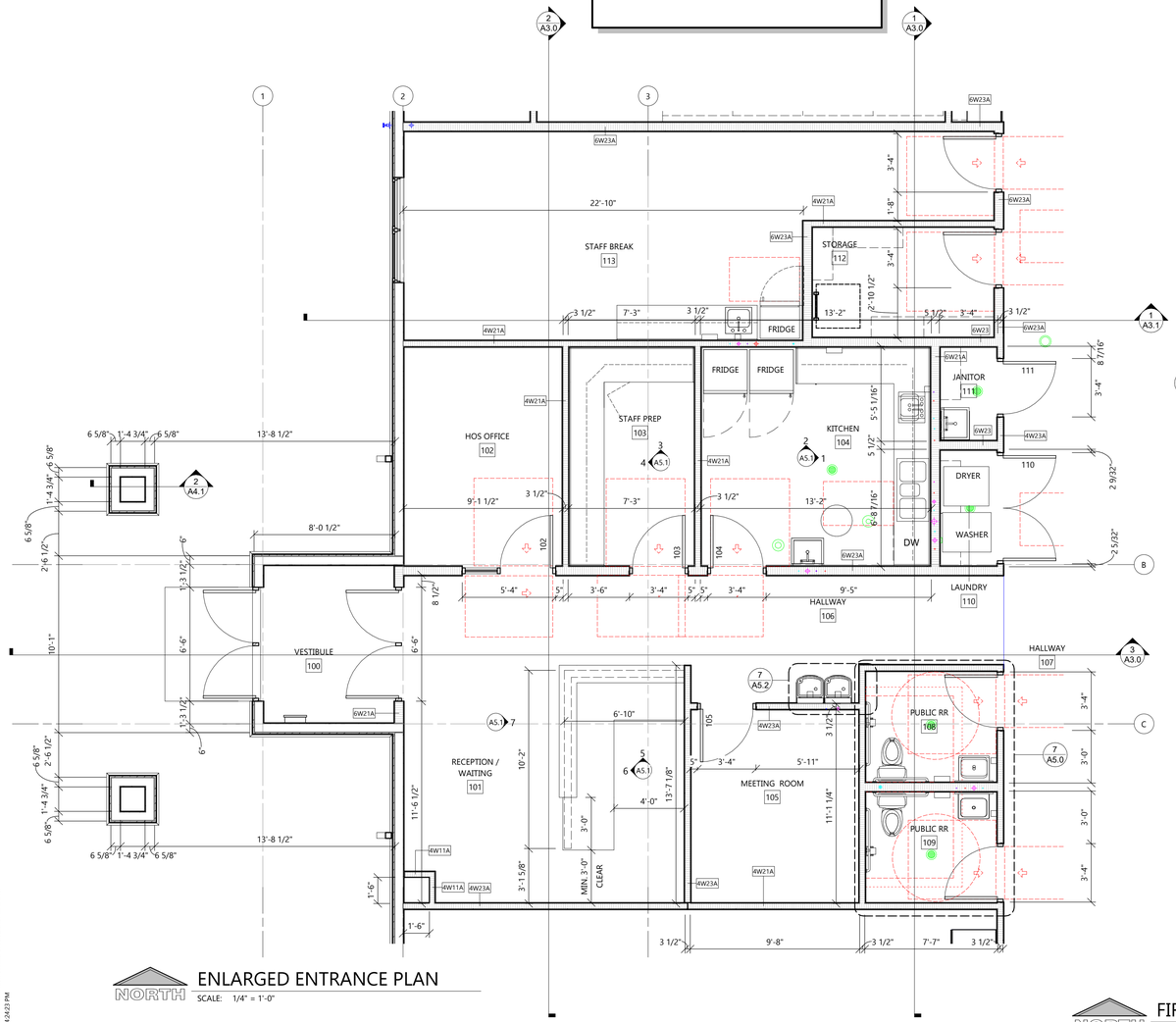
- ALL INTERIOR DIMS. ARE FROM FACE-OF-STUD TO FACE OF-STUD.
- ALL INTERIOR WALLS TO BE 2x4 OR 2x6 @ 16" O.C. (SEE FLOOR PLAN FOR SIZE) W/ 1/2" OR 5/8" GYPSUM BOARD BOTH SIDES - EXTEND TO BOTTOM CHORD OF TRUSSES / UNDERSIDE OF DECK.
- ALL INTERIOR WALLS TO BE 3 5/8" OR 6" METAL STUDS @ 16" O.C. (SEE FLOOR PLAN FOR SIZE) W/ 5/8" GYPSUM BOARD BOTH SIDES - EXTEND TO BOTTOM CHORD OF TRUSSES.
- MISCELLANEOUS HARDWARE INCLUDED: HANDICAP HARDWARE.
- PROVIDE WOOD BLOCKING FOR ANY FURNISHINGS BY OWNER. (VERIFY LOCATIONS)
- ALL EXTERIOR WINDOWS TO HAVE ALUMINUM FLASHING RETURNS AT HEAD, JAMBS, AND SILL OF ALL WINDOWS.
- ALL EXTERIOR WINDOWS TO HAVE GYPSUM BOARD RETURNS AT HEAD AND JAMBS AND PLASTIC LAMINATE COVERED WOOD SILL.
- ALL CABINETS AND COUNTERTOPS TO HAVE PLASTIC LAMINATE FRONTS AND TOPS.
- KITCHEN AND CABINET W/ COUNTERS BY GENERAL CONTRACTOR AS REQUIRED
- ALL CABINETRY AND EQUIPMENT BY OTHERS - SEE EQUIPMENT DRAWING BY INTERIOR DESIGNER FOR REQUIREMENTS.
- FOOD PREP AREA TO BE VERIFIED W/ OWNER. PROVIDE SHOP DRAWINGS ON EQUIPMENT.

SYMBOLS LEGEND

- 12B1 — SEE SHEET AX.X FOR WALL TYPES
- EXIT SIGNAGE
- FIRE EXTINGUISHER -SEE A5 SHEETS
- FIRE EXTINGUISHER w/ CABINET -SEE A5 SHEETS
- STUD WALL
- CONCRETE WALL
- MASONRY VENEER
- C.M.U. WALL
- SEE PLAN FOR ALL WALL WIDTHS
- NEW DOOR
- CHILD HEIGHT TOILET
- ADULT HEIGHT TOILET
- CHILD HEIGHT SINK
- ADULT HEIGHT SINK

KEYED NOTES

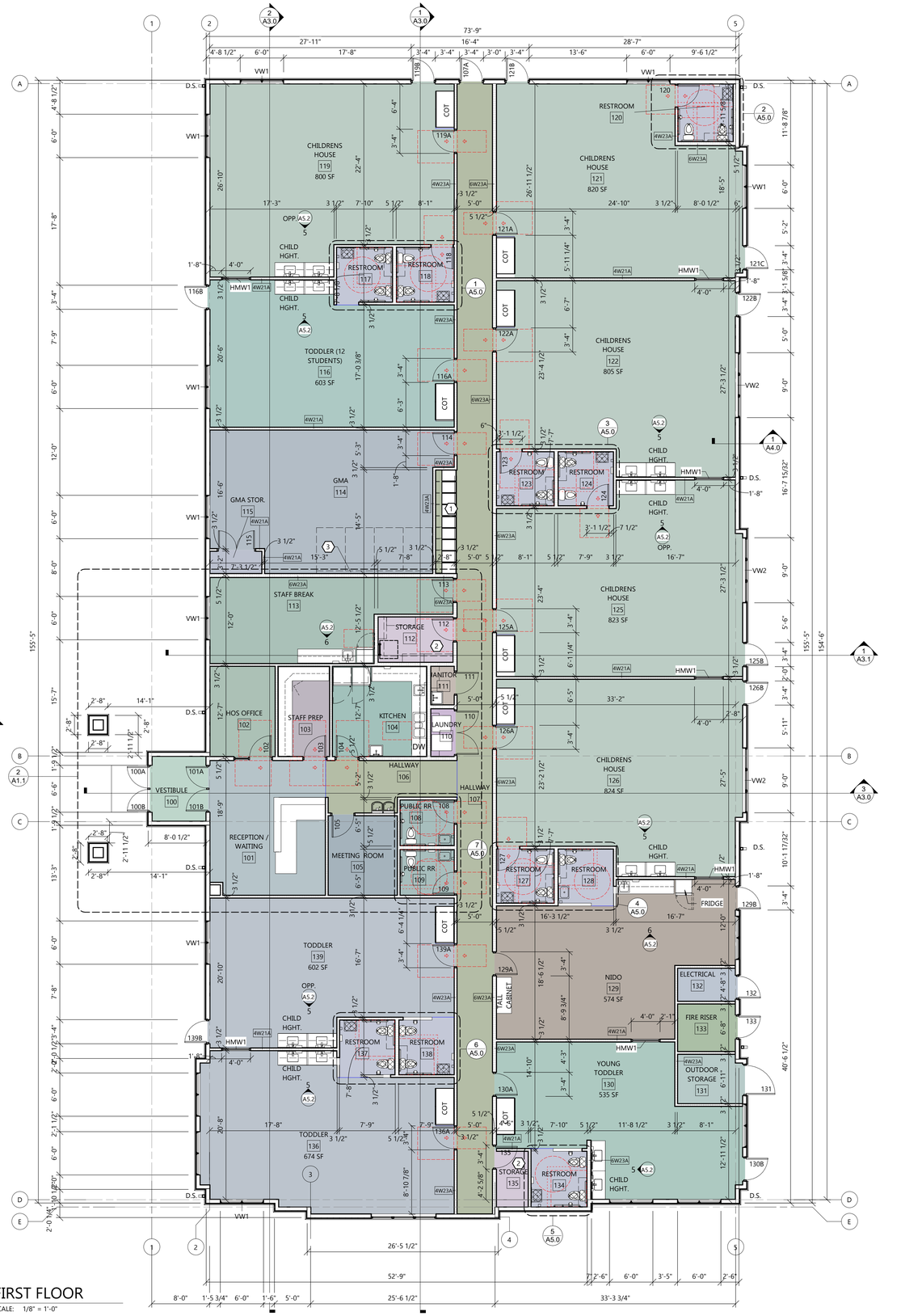
1. PROVIDE METAL LOCKERS PER HGE SPECIFICATIONS.
2. PROVIDE METAL SHELVING PER HGE SPECIFICATIONS.
3. CLIMBING WALL & MATS BY LL PER HGE OUTLINE SPECIFICATIONS



NORTH

ENLARGED ENTRANCE PLAN

SCALE: 1/4" = 1'-0"



NORTH

FIRST FLOOR

SCALE: 1/8" = 1'-0"

ARCHITECTURAL FIRST FLOOR PLAN

EXCEL

Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION

Quattro Development

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:

QUATTRO DEVELOPMENT

N35 W23824 CAPTIOL DRIVE • PEWAUKEE, WI

PROFESSIONAL SEAL

PRELIMINARY DATES

NOV. 3, 2022
NOV. 11, 2022
NOV. 16, 2022
NOV. 17, 2022
DEC. 12, 2022
JAN. 24, 2023

NOT FOR CONSTRUCTION

JOB NUMBER

2245520

SHEET NUMBER

A1.1

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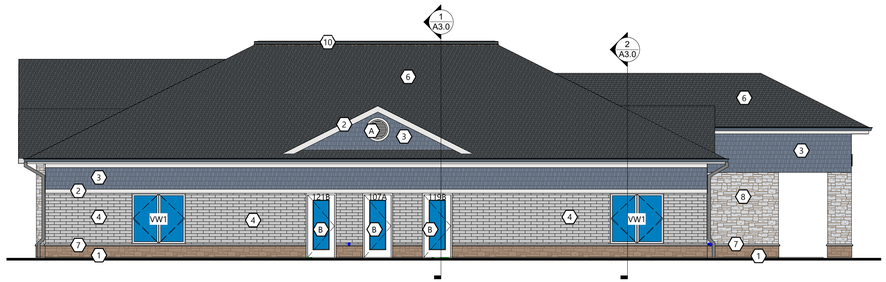


EXTERIOR FINISH KEY

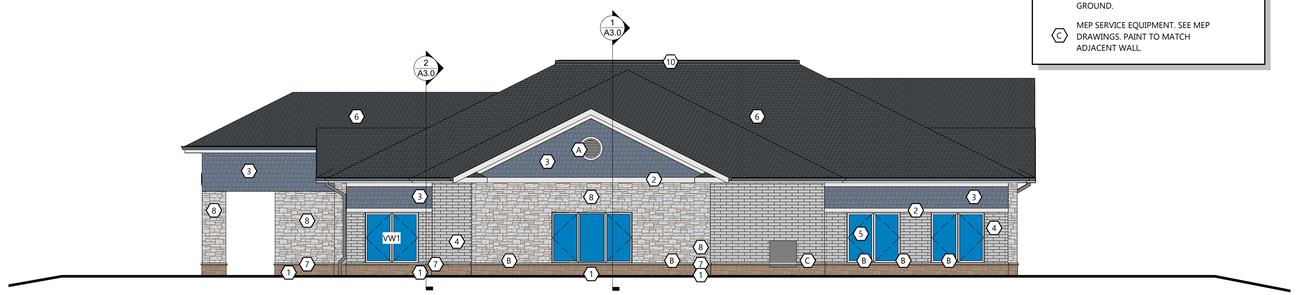
10	PREFINSIHED METAL COPING MFR: PAC-CLAD COLOR: MUSKET GRAY
9	VINYL CASEMENT WINDOW MFR: MINNKOTA PRODUCT: ASPEKT 1800 COLOR: WHITE
8	THIN STONE VENEER MFR: LAFARGE FOX RIVER DECORATIVE STONE PRODUCT: CHILTON COUNTRY SPUIRE
7	PRECAST CONCRETE SILL MFR: STONECAST PRODUCT: LIMESTONE
6	ASPHALT SHINGLES MFR: CERTAINTEED LANDMARK COLOR: GEORGETWON GRAY
5	ALUM STOREFRONT WINDOW GLASS: 1" INSUL. LOW-E GLASS FRAMES: DARK BRONZE
4	THIN CONCRETE BRICK VENEER MFR: COUNTY MATERIALS PRODUCT: HERITAGE COLLECTION COLOR: GRAYSTONE
3	SHAKE SIDING MFR: JAMES HARDIE PRODUCT: HARDIESHINGLE SIDING COLOR: CADET SW9143
2	1x6 TRIM MFR: JAMES HARDIE COLOR: EXTRA WHITE SW7006
1	THIN STONE VENEER MFR: LAFARGE FOX RIVER DECORATIVE STONE PRODUCT: CUSTOM COUNTRY BLEND

ELEVATION KEYNOTES

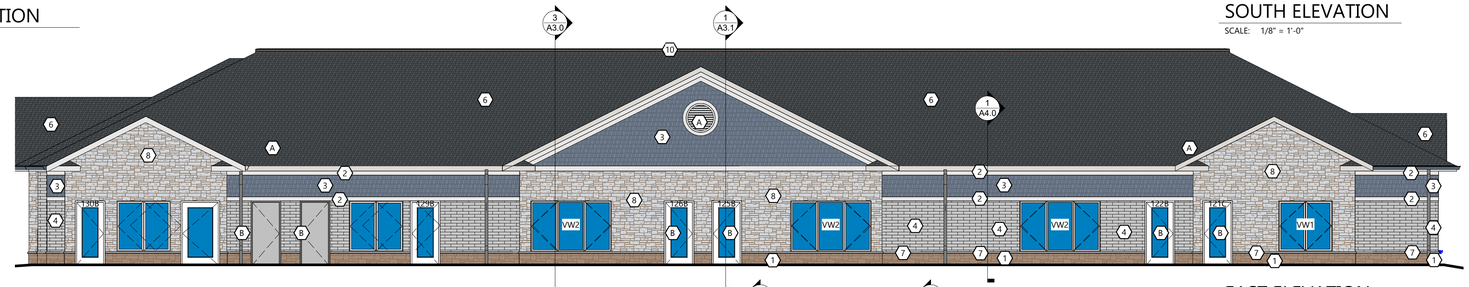
- A — VINYL ATTIC VENT. COLOR TO MATCH HARDIE TRIM, SW 7006 EXTRA WHITE
- B — HOLLOW METAL DOOR TO BE PAINTED PER HIGHER GROUND GUIDELINES. COORDINATE COLOR WITH HIGHER GROUND.
- C — MEP SERVICE EQUIPMENT. SEE MEP DRAWINGS. PAINT TO MATCH ADJACENT WALL.



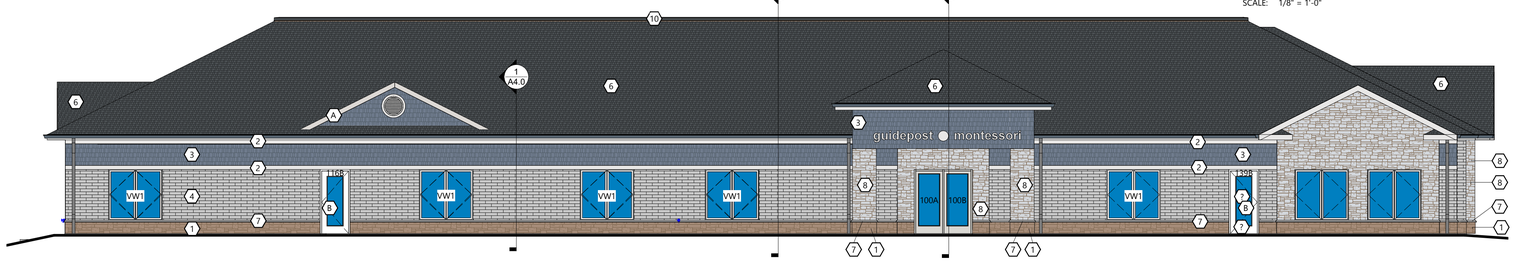
NORTH ELEVATION
SCALE: 1/8" = 1'-0"



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



EAST ELEVATION
SCALE: 1/8" = 1'-0"



WEST ELEVATION
SCALE: 1/8" = 1'-0"

ARCHITECTURAL EXTERIOR ELEVATIONS

EXCEL
Always a Better Plan
100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION

Quattro Development

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
N35 W23824 CAPTIOL DRIVE • PEWAUKEE, WI

PROFESSIONAL SEAL

PRELIMINARY DATES
NOV. 3, 2022
NOV. 11, 2022
NOV. 16, 2022
DEC. 12, 2022
JAN. 24, 2023

NOT FOR CONSTRUCTION

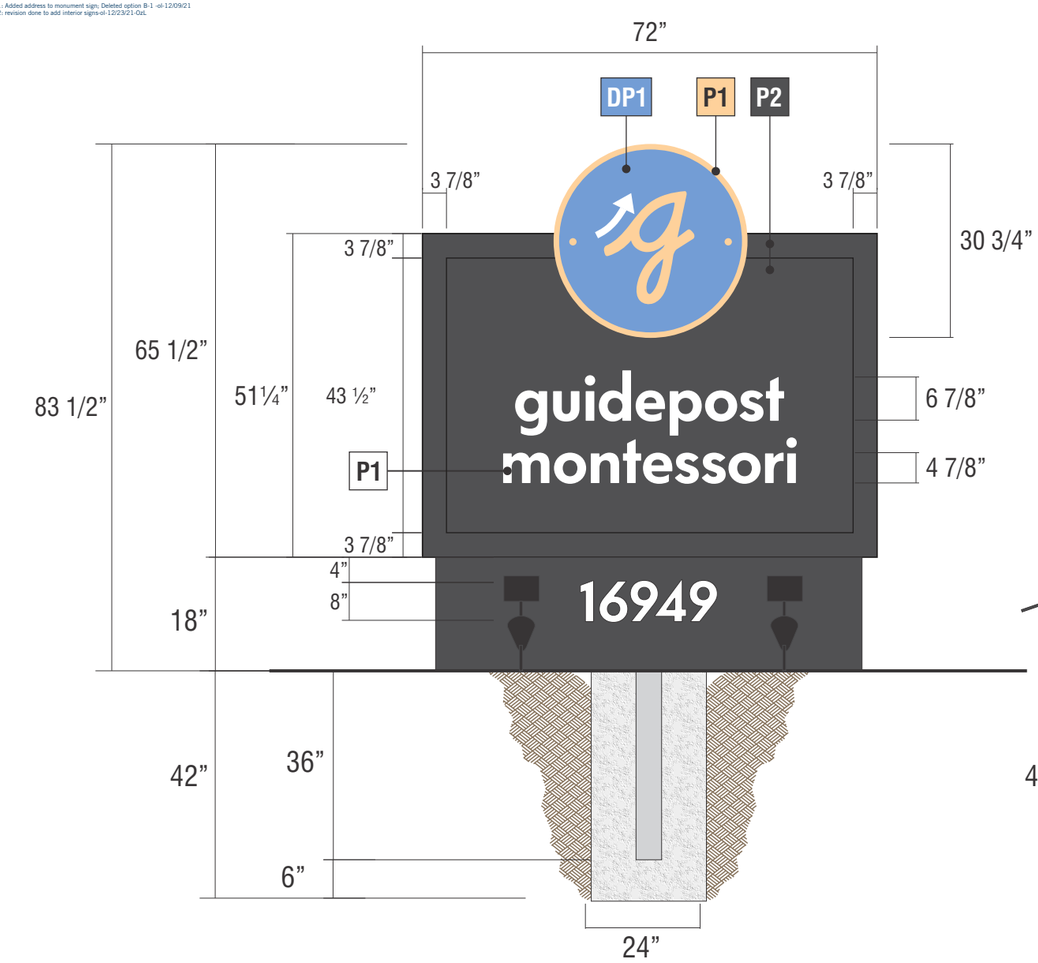
JOB NUMBER
2245520

SHEET NUMBER
A2.0

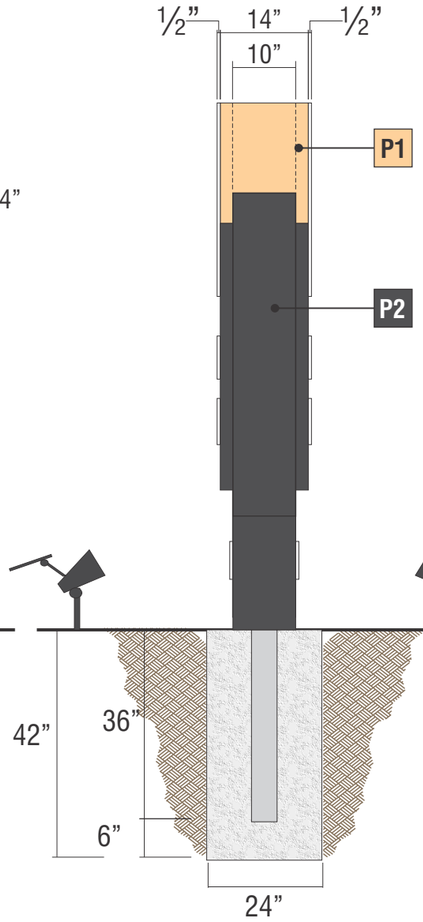
2022 © EXCEL ENGINEERING, INC.

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1/24/2023 4:42:21 PM

R1: Added address to monument sign; Deleted option B-1 -ol-12/09/21
R2: revision done to add interior signs-ol-12/23/21-OzL



FRONT ELEVATION SCALE: 1/2” = 1’-0”



SIDE ELEVATION SCALE: 1/2” = 1’-0”



BACK ELEVATION SCALE: 1/2” = 1’-0”



A | **SIGNTYPE** | **GPM-MON-65x72-83-DF**

MANUFACTURE AND INSTALL ONE (1) DOUBLE SIDED NON-ILLUMINATED MONUMENT SIGN W/ EXTERNAL LIGHTS

CABINET: TO BE CLAD WITH .125” ALUMINUM PAINTED MATTHEWS MP07102 “DEEP RIVER”, SATIN FINISH
PANEL: BREAK FORM ALUMINUM 2” DEEP PAINTED MATTHEWS MP07102 “DEEP RIVER”, SATIN FINISH
LOGO: 1/2” PLEX WITH FIRST SURFACE DIGITAL PRINTED LOGO.
COPY: 1/2” PLEX PAINTED MATTHEWS SATIN WHITE.
ADDRESS NUMERALS (NON-ILLUMINATED) : 1/2” ACRYLIC, PAINTED MATTHEWS SATIN WHITE
POLE: TO BE CLAD WITH .125” ALUMINUM PAINTED DARK GREY
FOOTINGS: BY SIGNTECH ENGINEERING.

PAINT COLORS

DP1	DIGITAL PRINT TO MATCH PMS 7453C BLUE, SATIN LAMINATE (REVERSED WEED DOTS TO SHOW THRU TAN BACKGROUND)
P1	PAINT TO MATCH (C-0 M-20 Y-43 K-0), SATIN FINISH
P2	PAINT MATTHEWS MP07102 “DEEP RIVER”, SATIN FINISH
P1	MATTHEWS SATIN WHITE



AMIR Solar Spotlights Outdoor = (4) Pack

Signtech
4444 Federal Blvd San Diego, CA 92102
(619) 527-6100 signtech.com

GUIDEPOST MONTESSORI
N56 West 16949 Ridgewood Dr #56,
Menomonee Falls, WI 53051 USA

This design is the exclusive property of Signtech and cannot be reproduced in whole or in part, without their prior written approval

Sales: Christine Mello
Coordinator: Brian Benson
Design: Oz Lemus
Engineering:

Date: 08/25/21
Drawing: 21-01361 **Rev:** R2-12/23/21-OzL
Quote:
Project ID: GUIDEPOST_N56W_2

Quattro Development
1100 Jorie Blvd. • Suite 140
Oak Brook, IL 60523
(630) 870-1921

January 26, 2023

Mr. Nick Fuchs
Planner & Community Development Director
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, WI 53072

Re: Release of 45' Reserved Right-of-Way from
Lot 2 of Certified Survey Map No. 10366
Pewaukee, WI

Dear Mr. Fuchs:

This letter is in regards to the existing 45' reserved right-of-way along the southern property line of Lot 2 of Certified Survey Map No. 13066.

Per our prior conversations, we have confirmed with the Wisconsin DOT that this was not a DOT requirement, but rather a City of Pewaukee requirement. In reviewing the aerial maps of this area, it appears that the lots adjacent to this property have encroached into the reserved right-of-way leading us to believe that the City has no plans to develop within this area. To develop Lot 2 to its full potential, we respectfully request that the City vacate / discontinue this future right-of-way from Lot 2.

Please review and let us know if the City would be open to this request.

If you have any further questions regarding this matter, please feel free to contact me at (630) 870-1921.

Sincerely,

Quattro Development, LLC

Brett J. Dahlman, P.E.
Director of Construction & Development
brett@quattrodevelopment.com

Attachment: CSM 10366

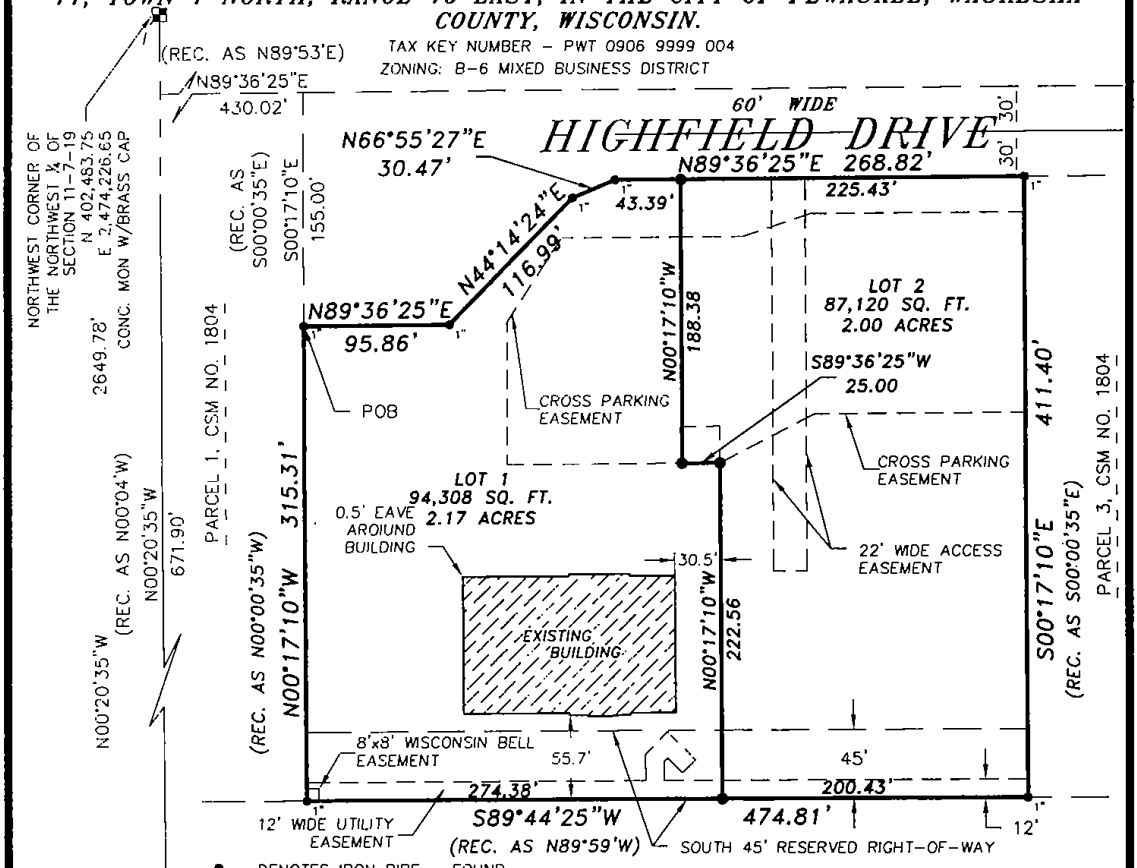
WC3472291-007

3472291

CERTIFIED SURVEY MAP NO. 10966

BEING A REDIVISION OF PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST CORNER OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

TAX KEY NUMBER – PWT 0906 9999 004
ZONING: B-6 MIXED BUSINESS DISTRICT



●1 – DENOTES IRON PIPE – FOUND.

● – DENOTES 1.315" O.D. IRON PIPE, WEIGHTING NOT LESS THAN 1.13 LBS PER LINEAL FOOT, 18" IN LENGTH – SET.

ALL DIMENSIONS ARE MEASURED AND COMPUTED TO THE NEAREST ONE HUNDREDTH OF A FOOT.

BEARINGS ARE REFERENCE TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, ASSUMED WEST LINE N00°20'35"W.

THERE SHALL BE NO DIRECT ACCESS FROM LOTS 1, 2 AND 3 TO S.T.H. "190" / CAPITOL DRIVE.

WIDTH VARIES

CAPITOL DRIVE (S.T.H. "190")

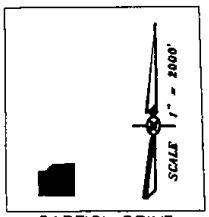
SOUTHWEST CORNER OF THE NORTHWEST ¼ OF SECTION 11-7-19
N 399,834.27
E 2,474,242.52
CONC. MON W/BRASS CAP

OWNER:
KB Pewaukee, LLC
2226 STATE ROAD 580
CLEARWATER, FL. 33763

SEE SHEET 2 OF 7 FOR EASEMENT DETAILS
SEE SHEET 3 OF 7 FOR LINE TABLE

GRAPHIC SCALE
100' 50' 0 100'

SCALE 1" = 100'



CAPTIOL DRIVE
VICINITY MAP
NW 1/4 SEC. 11-7-19

WISCONSIN
MARK D. NESGOOD
S-1967
KENOSHA, WI
LAND SURVEYOR

WISCONSIN REGISTERED LAND SURVEYOR
MARK D. NESGOOD S-1967

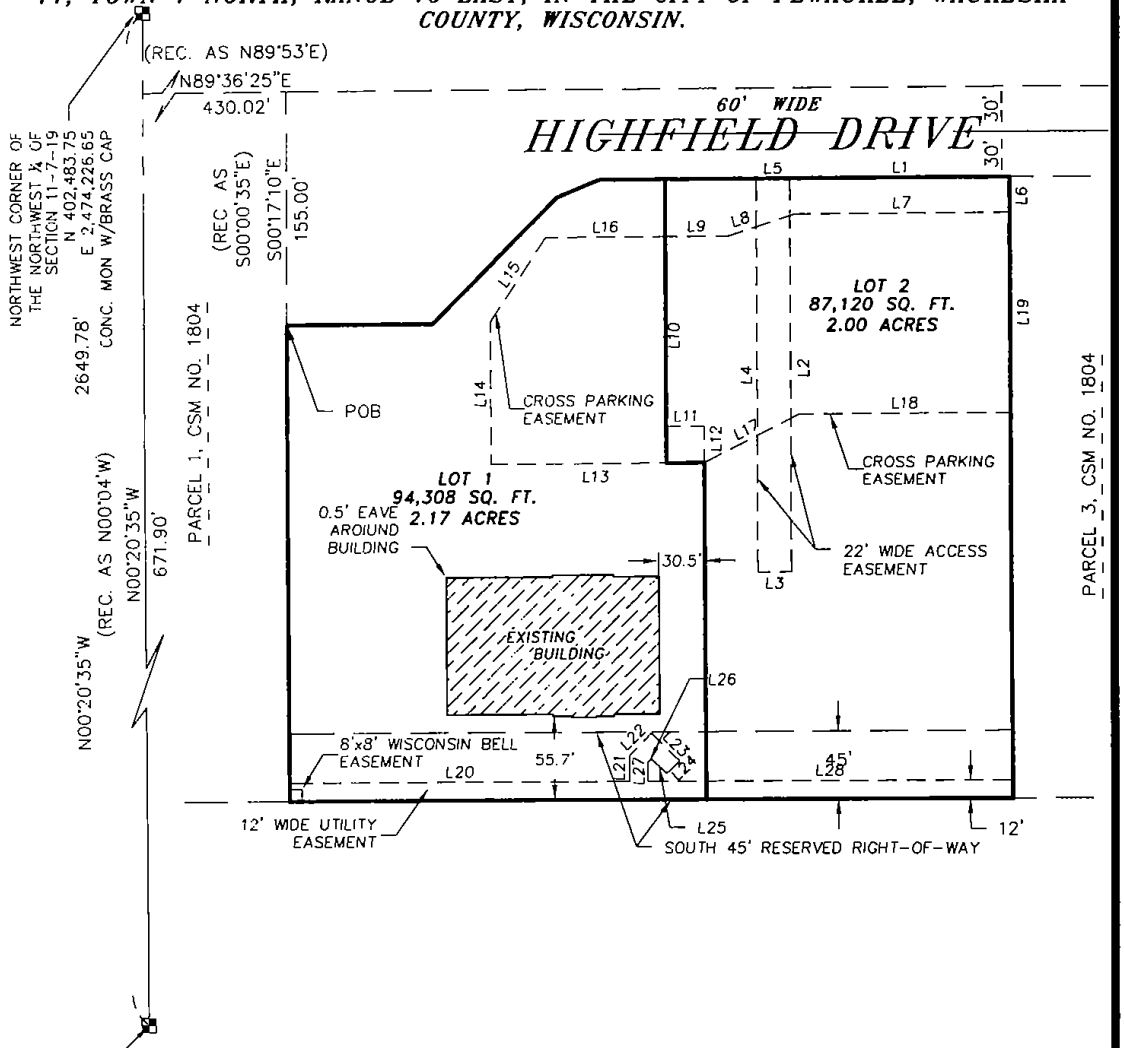
McCLURE ENGINEERING ASSOCIATES, INC.
5417 North 118th Court, Milwaukee, WI 53225
(414)616-4880 PROJECT NO. 08-15-05-114
(414) 616-4885 (FAX) DRAWING: 05114C2.DWG

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, RLS

SHEET 1 OF 7

CERTIFIED SURVEY MAP NO. 10364

BEING A REDIVISION OF PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST CORNER OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.



GRAPHIC SCALE

100' 50' 0 100'

1" = 100'

SCALE

WISCONSIN
MARK D. NESGOOD
S-1967
KENOSHA, WI
LAND SURVEYOR

McCLURE ENGINEERING ASSOCIATES, INC.
5417 North 118th Court, Milwaukee, WI 53225
(414)616-4880
(414) 616-4885 (FAX)

PROJECT NO. 08-15-05-114
DRAWING: 05114C2.DWG

3/28/07

WISCONSIN REGISTERED LAND SURVEYOR
MARK D. NESGOOD S-1967

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, RLS

SHEET 2 OF 7

CERTIFIED SURVEY MAP NO. 10366

BEING A REDIVISION OF PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S89°36'25"W	143.52'
L2	S00°16'37"E	260.80'
L3	S89°43'25"W	22.00'
L4	N00°16'37"W	260.75'
L5	S89°36'25"W	22.00'
L6	S00°17'10"E	23.68'
L7	S89°36'25"W	140.49'
L8	S71°16'14"W	46.32'
L9	S89°36'25"W	41.00'
L10	S00°17'10"E	125.82'
L11	N89°36'25"E	25.00'
L12	S00°17'10"E	24.30'
L13	S89°36'25"W	140.49'
L14	N00°17'10"W	94.45'
L15	N32°59'24"E	66.67'
L16	N89°36'25"E	78.91'
L17	N62°29'07"E	70.01'
L18	N89°36'25"E	138.18'
L19	N00°17'10"W	132.78'
L20	N89°44'25"E	223.97'
L21	N00°32'10"W	17.46'
L22	N44°27'51"E	20.49'
L23	S45°32'09"E	26.00'
L24	S44°27'51"W	12.00'
L25	N45°32'09"W	14.00'
L26	S44°27'51"W	3.51'
L27	S00°32'10"E	12.54'
L28	N89°44'25"E	238.84'

WISCONSIN
MARK D. NESGOOD S-1967 KENOSHA, WI
LAND SURVEYOR

3/18/07

WISCONSIN REGISTERED LAND SURVEYOR
MARK D. NESGOOD S-1967

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, RLS

SHEET 3 OF 7

CERTIFIED SURVEY MAP NO. 10366

BEING A REDIVISION OF A PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
MILWAUKEE COUNTY) SS

I, Mark D. Nesgood, Registered Land Surveyor, do hereby certify that I have surveyed, divided and mapped a Redivision of a part of Parcel 2 of Certified Survey Map No. 1804, being a part of the Southwest ¼ of the Northwest ¼ of Section 11, Town 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the Southwest corner of the Northwest ¼ of said Section; thence N00°20'35"W along the West line of the Northwest ¼ of said Section 671.90 feet; thence N89°36'25"E 430.02 feet to the Northwest corner of Parcel 2 of said Certified Survey Map; thence S00°17'10"E along the West line of Parcel 2 of said Certified Survey Map 155.00 feet to the point of beginning; thence N89°36'25"E along the South right-of-way line of Highfield Drive; thence N44°14'24"E along the Southeasterly right-of-way line of said Drive 116.99 feet; thence N66°55'27"E along the Southeasterly right-of-way line of said Drive 30.47 feet; thence N89°36'25"E along the South right-of-way line of said Drive 268.82 feet to a point on the East line of Parcel 2 of said Certified Survey Map; thence S00°17'10"E along the East line of Parcel 2 of said Certified Survey Map 411.40 feet to the Southeast corner of Parcel 2 of said Certified Survey Map and a point on the North right-of-way line of Capitol Drive; thence S89°44'25"W along the South line of Parcel 2 of said Certified Survey Map and the North right-of-way line of said Drive 474.81 feet to the Southwest corner of Parcel 2 of said Certified Survey Map; thence N00°17'10"W along the West line of Parcel 2 of said Certified Survey Map 315.31 feet to the point of beginning. Containing 4.17 acres of land more or less.

THAT I have made such survey, land division and map by the direction of KB Pewaukee, LLC, a Florida limited liability company, owner of said land.

THAT such map is a correct representation of all exterior boundaries and of the land surveyed and the land division thereof made.

THAT I have fully complied with the provisions of Chapter 236 of the Wisconsin State Statutes and the regulations of the City of Pewaukee in surveying, dividing and mapping the same.

Dated this 28th day of March, 2007



Wisconsin Registered Land Surveyor
Mark D. Nesgood S-1967

CERTIFIED SURVEY MAP NO. 10366

BEING A REDIVISION OF A PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

OWNERS CERTIFICATE

As Owner, I do hereby certify that I have caused the land described on this plat to be surveyed, divided and mapped as represented on this plat. We also certify that this Certified Survey Map is Required to be submitted to the following for approval: City of Pewaukee.

WITNESS the hand and seal of said Owner this 29th day of March, 2007.

IN THE PRESENCE OF:

KB Pewaukee, LLC, a Florida Limited Liability Company.

_____, Member
Robert E. Schmidt, Jr.
Managing Member

STATE OF Florida)
Pinellas COUNTY) ss

PERSONALLY came before me this 29 day of March, 2007, the above named Robert E Schmidt Member of KB Pewaukee, LLC a Florida Limited Liability Company, to me known to be the person who executed the foregoing instruction and acknowledged the same.

Amanda D. Norwick
Commission # DD641050
Expires: FEB. 15, 2011
www.AaronNotary.com

_____
Notary Public, State of Florida
My commission expires Feb. 15, 2011

WISCONSIN
MARK D. NESGOOD
S-1966
KENOSHA, WI
LAND SURVEYOR

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, R.L.S. SHEET 5 OF 7

207

CERTIFIED SURVEY MAP NO. 10366

BEING A REDIVISION OF A PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

CONSENT OF CORPORATE MORTGAGEE

Park Bank, mortgagee of the above described land, does hereby consent to the surveying, dividing and mapping of the land described on this map, and does hereby consent to the foregoing owner's certificate.

Park Bank

STATE OF)
COUNTY) SS

Personally came before me this 2ND day of APRIL, 2007, HEATHER BAYLOR of the above named Corporation, to be known to be the person who executed the foregoing instrument, and to me known to be such VICE PRESIDENT of said Corporation, and acknowledged that he executed the foregoing instrument as such officer as the deed of said corporation, by its authority.

Notary Public, State of WI
My Commission expires 4-[illegible]

WISCONSIN
MARK D.
NESGOOD
S-1967
KENOSHA
LAND SURVEYOR

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, R.L.S. SHEET 6 OF 7

CERTIFIED SURVEY MAP NO. 10366

BEING A REDIVISION OF A PART OF PARCEL 2 OF CERTIFIED SURVEY MAP NO. 1804, BEING A PART OF THE SOUTHWEST ¼ OF THE NORTHWEST ¼ OF SECTION 11, TOWN 7 NORTH, RANGE 19 EAST, IN THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

CITY PLAN COMMISSION APPROVAL:

Approved by the Plan Commission, City of Pewaukee, this 15th day of March, 2007.

Scott Klein – Chairman

David Mokros – Secretary

CITY COMMON COUNCIL APPROVAL:

Approved by the Common Council, City of Pewaukee, this 19th day of March, 2007.

Scott Klein – Mayor

Kelly Tarczewski – Clerk

CITY OF PEWAUKEE CORPORATE SEAL WISCONSIN

Vol 48 Pages 203-209

3472291

REGISTER'S OFFICE
WAUKESHA COUNTY, WI
RECORDED ON

04-13-2007 11:51 AM

MICHAEL J. HASSLINGER
REGISTER OF DEEDS

REC. FEE: 16.00
REC. FEE-CO: 5.00
REC. FEE-ST: 2.00
TRAN. FEE:
TRAN. FEE-STATE:
PAGES: 7

WISCONSIN MARK D. NESGOOD S-1967 KENOSHA WI LAND SURVEYOR

THIS INSTRUMENT WAS DRAFTED BY MARK D. NESGOOD, R.L.S. SHEET 7 OF 7

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-23-3-3

PWC 0906994

Recording area

Name & Return Address

City of Pewaukee
W240N3065 Pewaukee Rd
Pewaukee, WI 53072

LEGAL DESCRIPTION:

LOT 2 CERT SURV 10366 VOL 98/203 2.00 AC PT NW1/4 SEC 11 T7N R19E DOC# 3482373

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

Quattro Development/Higher Ground Education

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 March 16, 2023; has reviewed the various elements of the petitioner's 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 on April 3, 2023.

NOW, THEREFORE, let it be known that the City Common Council, by its action on April 3, 2023 has, hereby, granted a Conditional Use Permit for the following use(s):

Construction of a childcare facility.

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

1. Staff recommends that the playground areas, fencing, and any other accessory structure and use be located behind the building on the north side of the property.
2. Final grading, erosion control and storm water management plans shall be approved by the Engineering Department, prior to any land disturbing activities.
3. The applicant shall not be responsible for the construction of a bell tower as conditioned within Conditional Use Permit No. COP-05-10-3.

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 _____, 2023 by Steve Bierce, Mayor and Kelly Tarczewski, Clerk.

_____

(Seal) Ami Hurd
My Commission expires _____

This instrument was drafted by Ami Hurd, Deputy Clerk

DRAFT

WAUKESHA COUNTY CITY OF PEWAUKEE STATE OF WISCONSIN

RESOLUTION NO. __-__

A RESOLUTION AUTHORIZING THE RELEASE, WAIVER, VACATION AND REVISION OF A FORTY-FIVE FOOT RESERVED RIGHT-OF-WAY RESTRICTION UPON LOTS 1 AND 2 OF CERTIFIED SURVEY MAP NO. 10366 FOR PROPERTIES LOCATED AT APPROXIMATELY N35W23877 HIGHFIELD COURT BEARING TAX KEY NOS. 0906993 AND 0906994

WHEREAS, the Plan Commission having approved a Conditional Use and Site and Building Plan Review Application upon the application of Quattro Development, LLC on March 16, 2023, and the Plan Commission having conditioned approval thereof in part upon Common Council approval of the release of a 45' Reserved Right-of-Way restriction located upon Parcels 1 and 2 of Certified Survey Map No. 10366, recorded April 13, 2007 in Volume 98 of Certified Survey Maps on Pages 03 to 209, inclusive as Document No. 3472291 with the Office of the Register of Deeds for Waukesha County, Wisconsin, as further described below:

Release of the 45' Reserved Right-Of-Way located along the south property line of Parcel 1 of CSM No. 10366.

Release of the 45' Reserved Right-Of-Way located along the south property line of Parcel 2 of CSM No. 10366; and

WHEREAS, the City Engineering Department and City Planner have reviewed the proposed release of a 45' Reserved Right-of-Way restriction and recommended approval thereof to the Common Council; and

WHEREAS, the 45' Reserved Right-of-Way has been determined to no longer be needed considering the developments of the subject properties and adjacent parcels to the east; and

WHEREAS, the previously recorded 45' Reserved Right-of-Way restriction described above are located upon Certified Survey Map No. 10366, which properties are legally described as follows:

> Commencing at the Southwest comer of the Northwest ¼ of said Section; thence N00°20'35"W along the West line of the Northwest ¼ of said Section 671.90 feet; thence N89°36'25"E 430.02 feet to the Northwest comer of Parcel 2 of said Certified Survey Map; thence S00°17'10"E along the West line of Parcel 2 of said Certified Survey Map 155.00 feet to the point of beginning; thence N 89°36'25"E along the South right-of-way line of Highfield Drive; thence N44°14'24" E along the Southeasterly right-of-way line of said Drive 116.99 feet; thence N66°55'27"E along the Southeasterly right-of-way line of said Drive 30.47 feet; thence

N89°36'25"E along the South right-of-way line of said Drive 268.82 feet to a point on the East line of Parcel 2 of said Certified Survey Map; thence S00°17'10"E along the East line of Parcel 2 of said Certified Survey Map 411.40 feet to the Southeast comer of Parcel 2 of said Certified Survey Map and a point on the North right-of-way line of Capitol Drive; thence S89°44'25"W along the South line of Parcel 2 of said Certified Survey Map and the North right-of-way line of said Drive 474.81 feet to the Southwest comer of Parcel 2 of said Certified Survey Map; thence N00°17'10"W along the West line of Parcel 2 of said Certified Survey Map 315.31 feet to the point of beginning. Containing 4.17 acres of land more or less.

WHEREAS, Wis. Stats section 236.293 provides in part that any restriction placed on platted land by covenant, grant of easement or in any other manner, which was required by a public body vests in the public body the right to enforce the restriction at law or in equity and that the restriction may be released or waived in writing by the public body having the right of enforcement; and

WHEREAS, the Common Council has determined that the release, waiver, vacation and revision of the prior recorded 45' Reserved Right-of-Way is reasonable as it is no longer necessary for the orderly development of the subject properties or appropriate following the approval of the aforesaid site and building development plans submitted by Quattro Development, LLC.

NOW, THEREFORE, BE IT RESOLVED, by the Mayor and Common Council of the City of Pewaukee, Wisconsin, that the 45' Reserved Right-of-Way upon Parcels 1 and 2 of Certified Survey Map No. 10366, recorded April 13, 2007 in Volume 98 of Certified Survey Maps on Pages 03 to 209, inclusive as Document No. 3472291 with the Office of the Register of Deeds for Waukesha County, Wisconsin, be and the same are hereby waived and released.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to record this Resolution in the Office of the Register of Deeds for Waukesha County, Wisconsin following the approval of the proposed Quattro Development, LLC Conditional Use and Site and Building Plan Review applications.

Passed and adopted this __th day of _____, 2023.

FOR THE COMMON COUNCIL OF THE CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

ATTEST:

_____
Steve Bierce, Mayor

_____
Kelly Tarczewski, Clerk/Treasurer

TIA TECHNICAL MEMORANDUM

Date: May 2, 2023

Prepared for: Brett Dahlman, P.E.
Quattro Development, LLC

Prepared by: Tammi Czewski, P.E., PTOE
Traffic Analysis & Design, Inc.

Subject: **Early Childhood School – Pewaukee, WI**
Traffic Impact Analysis

INTRODUCTION

This traffic impact analysis (TIA) technical memorandum was prepared to document the peak hour traffic impacts expected at the study intersections with buildout of the proposed early childhood school at 23877 Highfield Court in Pewaukee, Wisconsin. A map showing the development site and proposed access location is on Exhibit 1.

PROPOSED DEVELOPMENT

The conceptual site plan for the proposed development is on Exhibit 2. The site is zoned B-6 (Mixed-Use Business District). A conditional use is being sought for the proposed childcare development.

The early childhood school is proposed to be located between an existing office building and Capitol Drive East Kindercare on the south side of Highfield Court. Access to the early childhood school is proposed to be shared with the easternmost driveway for the existing office building. The early childhood school will provide Montessori childcare for up to 152 children (aged toddler through six years old) and 29 full-time staff in an 11,836-square foot building. The school will be open from 7:00 a.m. to 6:00 p.m. Monday through Friday. The site does not include a pick-up/drop-off lane – parents park first and then escort the children directly into the school. Due to variability in parent schedules, pick-ups and drop-off times are staggered over a two-to-three-hour period in the morning and afternoon.

STUDY AREA

Study Intersections

The study intersections are also identified on Exhibit 1 and include the following:

- Pewaukee Road & Swan Road
- Highfield Road & Capitol Drive
- Highfield Road & Highfield Court
- Highfield Road & Broken Hill Circle South

The Pewaukee Road/Swan Road intersection operates with traffic signal control. All other study intersections operate with stop sign control. The existing geometrics, traffic control, posted speed limits, and distances between study intersections are shown on Exhibit 3.

Study Area Roadways

Capitol Drive (STH 190) is classified as a Principal Arterial and is an east/west roadway with a four-lane cross-section (two through lanes in each direction) that is divided by a wide grass median. The 2022 annual average daily traffic (AADT) on Capitol Drive ranged from 22,800 to 26,200 vehicles per day (vpd) in the study area. The posted speed limit on Capitol Drive is 55 mph through the study area.

Pewaukee Road (STH 164) is classified as a Principal Arterial and is a north/south roadway with a four-lane cross-section (two through lanes in each direction) that is divided by a mix of concrete and grass median within the study area. There is a multi-use path along the west side of the roadway between Swan Road/Meadow Creek Market and Capitol Drive. The 2022 AADT on Pewaukee Road ranges from 17,300 vpd (north of Swan Road) to 22,600 vpd (south of Capitol Drive). The posted speed limit on Pewaukee Road is 45 mph through the study area.

Swan Road is classified as a Collector Roadway and is a north/south roadway with a two-lane cross-section (one through lane in each direction) and a 2018 AADT of 1,100 vpd north of Pewaukee Road. The posted speed limit on Swan Road is 35 mph through the study area. An advisory speed limit of 30 mph is posted at the curve just east of Pewaukee Road.

Broken Hill Circle South, Highfield Road, and Highfield Court are two-lane local roadways providing access for the Broken Hills neighborhood, the Auburn Ridge condominiums, and the commercial development along Highfield Court. The posted speed limit on these roadways is 25 mph.

EXISTING & FUTURE TRAFFIC VOLUMES

Existing Traffic Volumes

TADI collected peak hour turning movement counts at the study intersections on April 11 and 12, 2023. The collective peak hours for these intersections occur from 7:30-8:30 a.m. (AM peak hour) and from 4:30-5:30 p.m. (PM peak hour). The traffic counts were compiled for these peak hours as shown on Exhibit 4. The complete traffic counts collected for this study are in Appendix A.

Development Traffic Volumes

The trip generation and trip distribution for the proposed early childhood school development is on Exhibit 5. Based on trip rates and fitted curve equations published in the Institute of

Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*, a daycare with up to 152 students generates 620 weekday daily trips, with 110 trips (60 in/50 out) in the AM peak hour and 105 trips (50 in/55 out) in the PM peak hour.

The distribution of these trips to the study area roadways was estimated based on the existing AADT volumes on the surrounding street system. The trip distribution was evaluated as:

- 30% to/from the west on Capitol Drive
- 25% to/from the east on Capitol Drive
- 20% to/from the north on Pewaukee Road
- 25% to/from the south on Pewaukee Road

The new trips for the proposed development were assigned to the study intersections based on this trip distribution. Trips were assigned for two scenarios:

- Scenario A: Without Cut-Through Traffic. Assumes that 100% of the site trips will access Pewaukee Road and Capitol Drive via at the Highfield Road/Capitol Drive intersection.

  For Scenario A, the early childhood school traffic on Highfield Road, south of Highfield Circle is about 43% of the total traffic on that street segment. No additional site traffic is present on Highfield Road, north of Highfield Circle for Scenario A.

- Scenario B: With Cut-Through Traffic. Assumes that 17% of the site trips will access the Pewaukee Road and Capitol Drive via Swan Road ("cutting through" the neighborhood to the north). This percentage was estimated from the existing Highfield Court peak hour volumes turning to and from the north on Highfield Road.

  For Scenario B, the early childhood school traffic on Highfield Road, south of Highfield Circle is about 38% of the total traffic on that street segment. The early childhood school traffic on Highfield Road, north of Highfield Circle is about 20% of the total traffic on that street segment.

The site traffic assignments are shown on Exhibit 6 (Scenario A) and on Exhibit 7 (Scenario B).

Future Build Traffic Volumes

The early childcare school new trips were added to the Existing traffic volumes to generate the Build traffic volumes. The Build traffic volumes are shown on Exhibit 8 (Scenario A) and on Exhibit 9 (Scenario B).

PEAK HOUR TRAFFIC OPERATIONS & QUEUES

The study intersections were analyzed using the Synchro 11 traffic analysis model (outputs based on the *Highway Capacity Manual, 6th Edition*) and the peak hour turning movement volumes estimated for each intersection. 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 purposes of this study, LOS D or better was used to define acceptable peak hour

operating conditions. The LOS definitions for signalized and unsignalized intersections are in Appendix B.

Existing Traffic Operations

The Existing traffic volumes were evaluated with the existing geometrics and traffic control at each study intersection. The Existing traffic weekday AM and PM peak hour LOS, delays, and queues for each study intersection are shown on Exhibit 10. The Synchro capacity analysis worksheets for the Existing traffic analyses are in Appendix B. The Synchro analysis shows that the southbound left-turn movement from Highfield Road onto Capitol Drive operates at LOS F with 53 seconds of delay (less than one minute per vehicle) during the weekday PM peak hour. Traffic queues for this movement are relatively low, however, at 1-2 vehicles per lane. All other study intersections operate acceptably at LOS D or better during the peak hours. All traffic movements at the Highfield Road intersections with Highfield Court and Broken Hills Circle South operate at LOS A.

Build Traffic Operations

The Build traffic operations were evaluated with the additional trips generated from the proposed early childhood school on Highfield Court. Build traffic volumes for Scenario A (no cut-through traffic) results in increased AM and PM delays (LOS E and/or F) at both northbound and southbound movements from Highfield Road and Five Fields Road. Delays for these movements are approximately 0.5-1.5 minutes or less per vehicle, and queues are 1-3 vehicles per lane. With the additional site traffic, the Highfield Road intersection with Highfield Ct. operates at LOS B or better during the peak hours.

To avoid these peak hour delays, some development traffic may choose to travel northward and use Swan Road to access Pewaukee Road and Capitol Drive. Build traffic volumes for Scenario B (with cut-through traffic), the traffic impact to the Highfield Road/Capitol Drive intersection is less, with northbound delays from Five Fields Road remaining at LOS D or better for both the AM and PM peak hours, and southbound delays from Highfield Road remaining at LOS D for the AM peak hour. Southbound delays from Highfield Road are expected to remain at LOS F during the weekday PM peak hours, but with only 17 seconds of additional delay and approximately one additional vehicle in queue. Even with the additional traffic traveling northward for Scenario B, all movements at the Highfield Road/Broken Circle South intersection remain at LOS A during the peak hours, and no significant increase in delays or queues are expected at the Swan Road/Pewaukee Road intersection.

The Build traffic weekday AM and PM peak hour LOS, delays, and queues for each study intersection are shown on Exhibit 11 (Scenario A) and Exhibit 12 (Scenario B). The Synchro capacity analysis worksheets for the Build traffic analyses are in Appendix C (Scenario A) and Appendix D (Scenario B).

TRAFFIC GAP STUDY

A traffic gap study was completed for the Highfield Road/Capitol Drive intersection to field-verify the traffic operations evaluated in Synchro. The intersection is located just east of the

Capitol Drive/Pewaukee Road traffic signal which creates one-way/eastbound traffic gaps on Capitol Drive through the Highfield Road intersection.

The length of gaps, in time, between vehicles traveling along eastbound and westbound Capitol Drive at the median opening for Highfield Road were collected during the weekday AM and PM peak hours. Critical gap and follow-up times for vehicle turning movements were then calculated based on equations in the Highway Capacity Manual (HCM). These equations include adjustment factors for heavy vehicles, grade, divided roadways, and intersection geometry. The gap analysis worksheet calculations and compiled gap counts are in Appendix E.

Equivalent gaps (or capacity of gaps) are calculated by adding the number of gaps available for only one vehicle to turn, gaps long enough for two vehicles to turn, and gaps long enough for three vehicles to turn (without counting the same gaps twice). The equivalent gaps represent the number of additional turning movements that could be made above and beyond the existing turning movements already occurring. Table 1 summarizes the findings of the gap study. The table shows the equivalent gaps calculated from the field counts, the new site trips assigned to the turning movements at Highfield Road, and the excess gaps available for additional turning movements above those numbers.

Table 1. Capitol Drive at Highfield Road Traffic Gaps

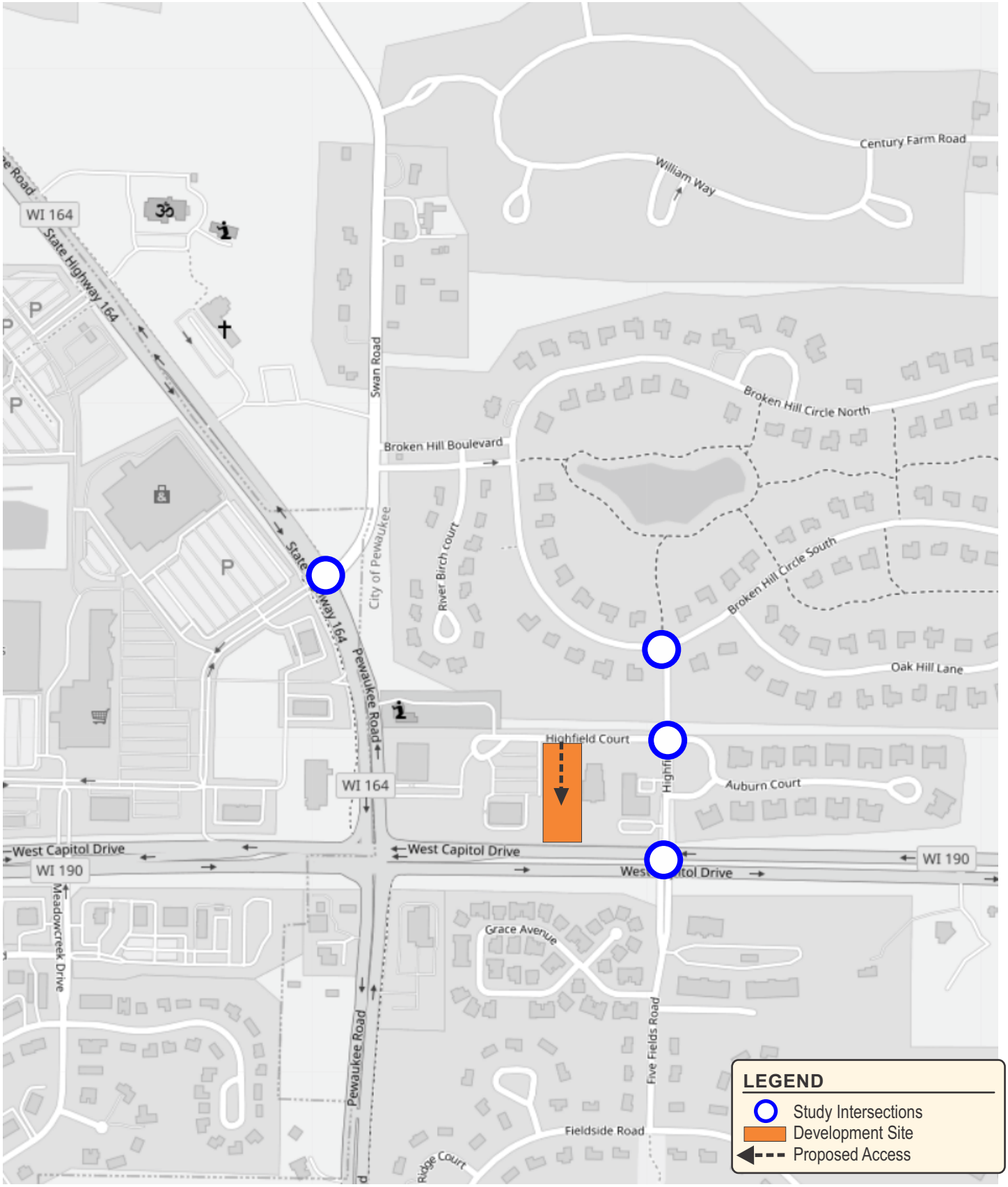
Intersection Direction	Peak Hour	Equivalent Gaps	Net New Site Trips	Excess Gaps
Scenario A: Without Cut-Through Traffic to Swan Road				
SB Left Turn from Highfield Road[1]	AM	160	10	150
	PM	171	15	156
SB Right Turn from Highfield Road	AM	214	40	174
	PM	160	40	120
EB Left Turn from Capitol Drive	AM	404	45	359
	PM	278	40	238
Scenario B: With Cut-Through Traffic to Swan Road				
SB Left Turn from Highfield Road[1]	AM	160	5	155
	PM	171	10	161
SB Right Turn from Highfield Road	AM	214	35	179
	PM	160	35	125
EB Left Turn from Capitol Drive	AM	404	35	369
	PM	278	30	248

[1] *SB left turn is completed in a two-stage gap maneuver (1 stage: SB Through to Median, 2nd stage, SB left turn from Median). The lower number of gaps between the stage 1 and stage 2 movements is reported in the table.*

As shown, there are anywhere from 120-369 excess gaps for additional turning movements beyond the existing and site trip traffic assigned to the Capitol Drive/Highfield Road intersection (Scenarios A & B). These excess gaps affirm that the adjacent signal provides one-way gaps in traffic along Capitol Drive that are not reflected in the Synchro traffic model. With a significant amount of excess gaps, traffic movements from Highfield Road may operate with less delays than shown in the LOS tables.

RECOMMENDTIONS & CONCLUSIONS

No modifications to the study intersections are recommended to accommodate the additional traffic from the proposed early childhood school on Highfield Court in Pewaukee, Wisconsin. Although the traffic signal at the Capitol Drive/Pewaukee Road intersection creates gaps for traffic to make southbound left-turn movements from Highfield Court with reasonable delays (per the gap study), some traffic may "cut-through" the neighborhood roads to the north of the site and use Swan Road to access Pewaukee Road and then Capitol Drive. The additional "cut-through" traffic is not expected to significantly increase delays at the Swan Road/Pewaukee Road intersection, and traffic operations at the Highfield Road/Broken Hills Circle South intersection is expected to remain at LOS A during the peak hours for all turning movements.

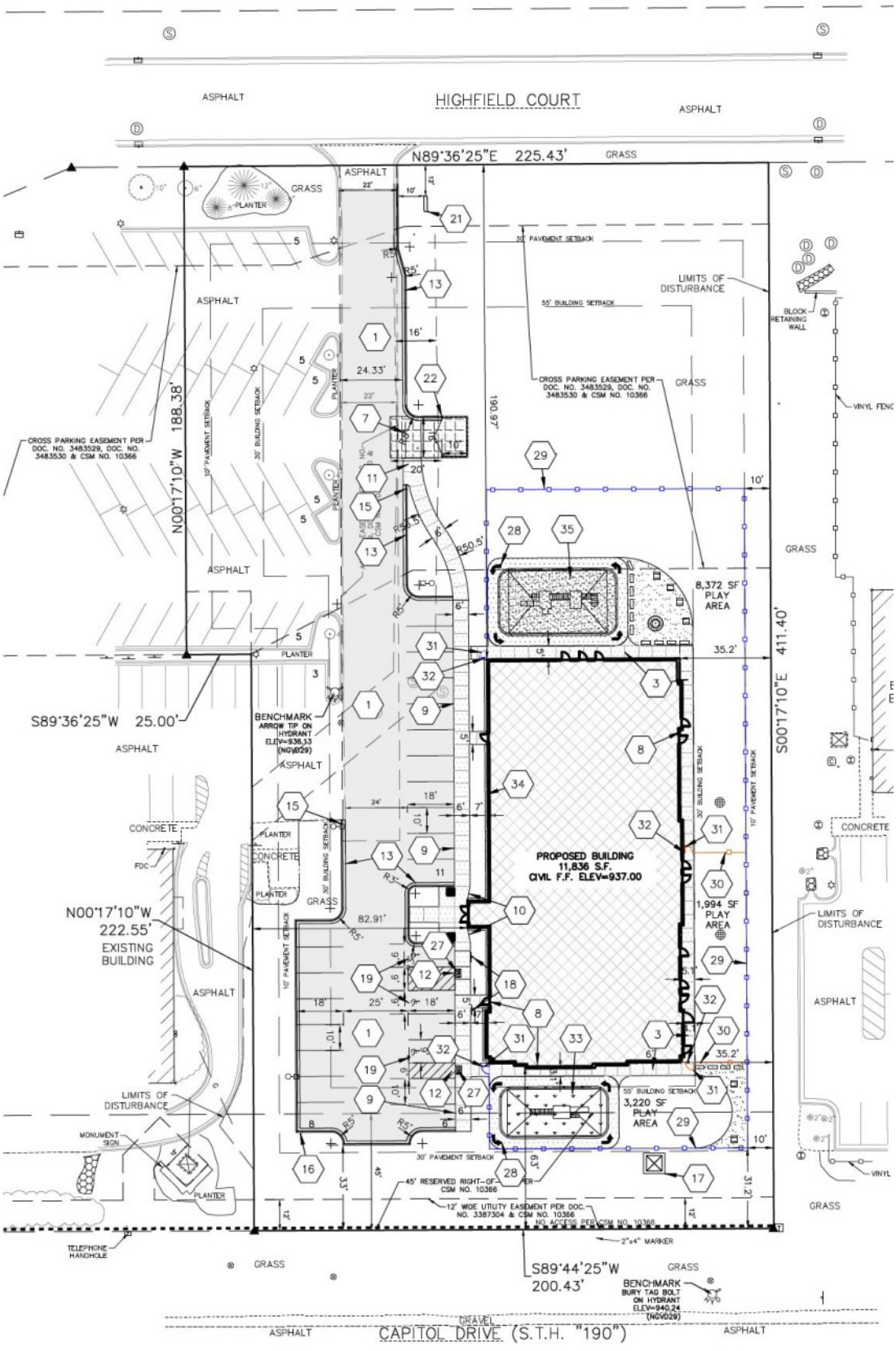


TADI
TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N
NOT TO SCALE

EXHIBIT 1
PROJECT LOCATION MAP



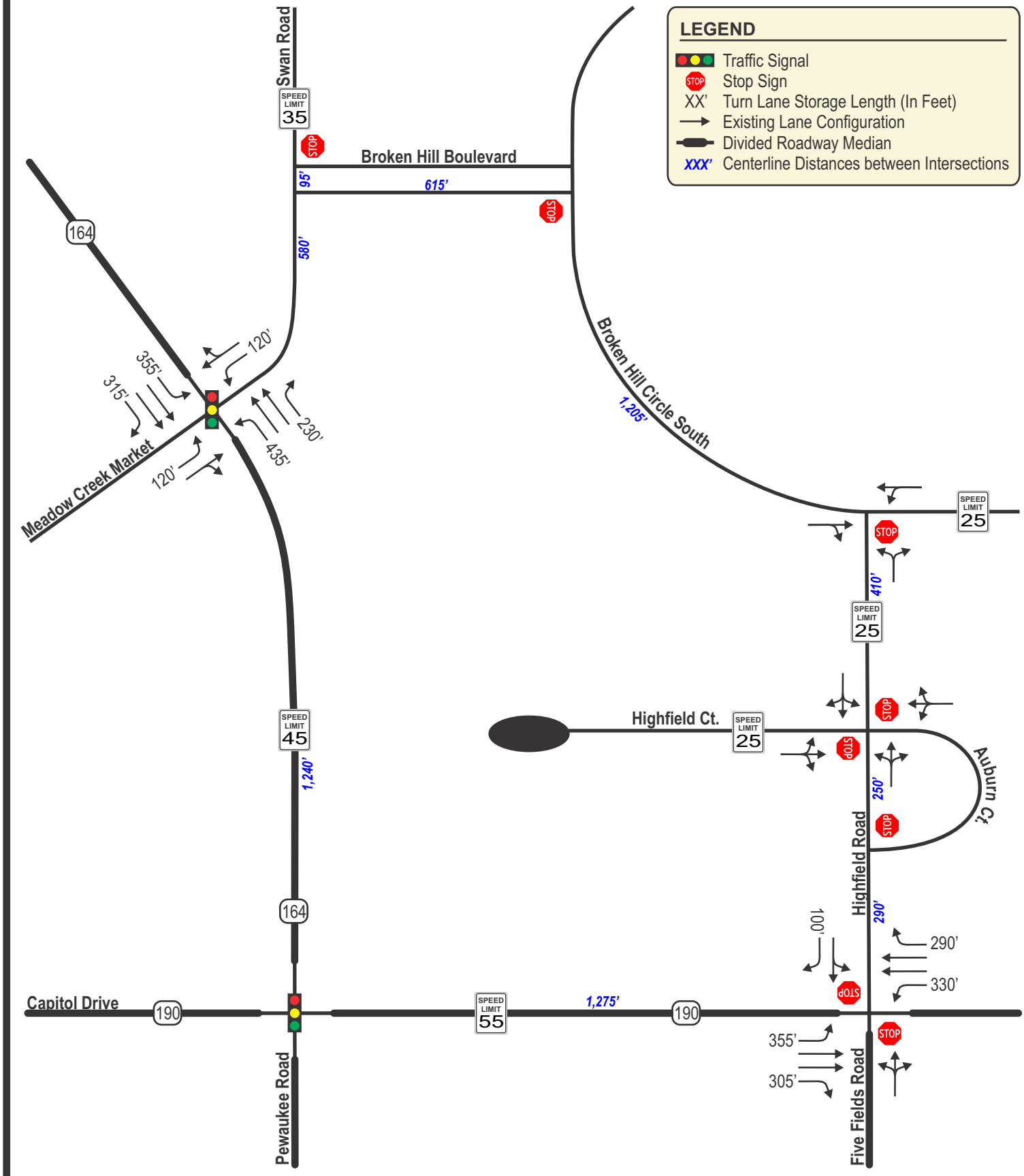
TADI
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3072: 05-02-2023

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NOT TO SCALE

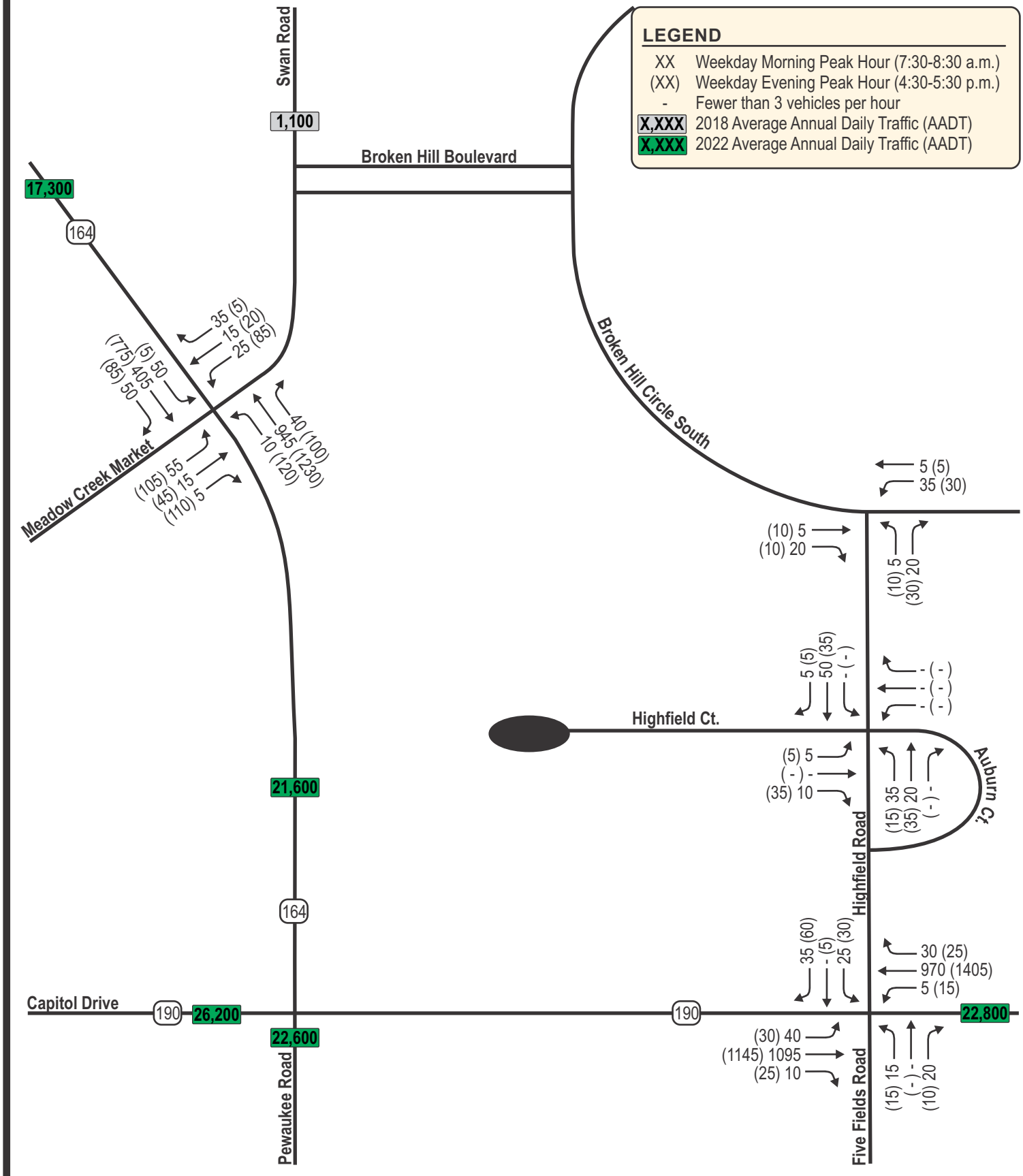
EXHIBIT 2
CONCEPTUAL SITE PLAN



TADI
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3072: 05-02-2023

EXHIBIT 3
EXISTING TRANSPORTATION SYSTEM



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3072: 05-02-2023

N
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EXHIBIT 4
EXISTING PEAK HOUR TRAFFIC VOLUMES

Day Care Trip Generation Table[1]

Land Use	ITE Code	Proposed Size	Weekday Daily	AM Peak In	AM Peak Out	AM Peak Total	PM Peak In	PM Peak Out	PM Peak Total
Day Care Center	565	152 Students	620 (4.09)	60 (53%)	50 (47%)	110 FCE	50 (47%)	55 (53%)	105 FCE
Total New Trips			**620**	**60**	**50**	**110**	**50**	**55**	**105**

[1]ITE Trip Rates (X.XX) and/or Fitted Curve Equations (FCE) are from the ITE Trip Generation Manual, 11th Edition.

TRIP DISTRIBUTION (New Trips)						
W. on Capitol Drive	30%	20	15	15	15	
E. on Capitol Drive	25%	15	10	10	15	
N. on STH 164	20%	10	10	10	10	
S. on STH 164	25%	15	15	15	15	
	100%	***60***	***50***	***50***	***55***	

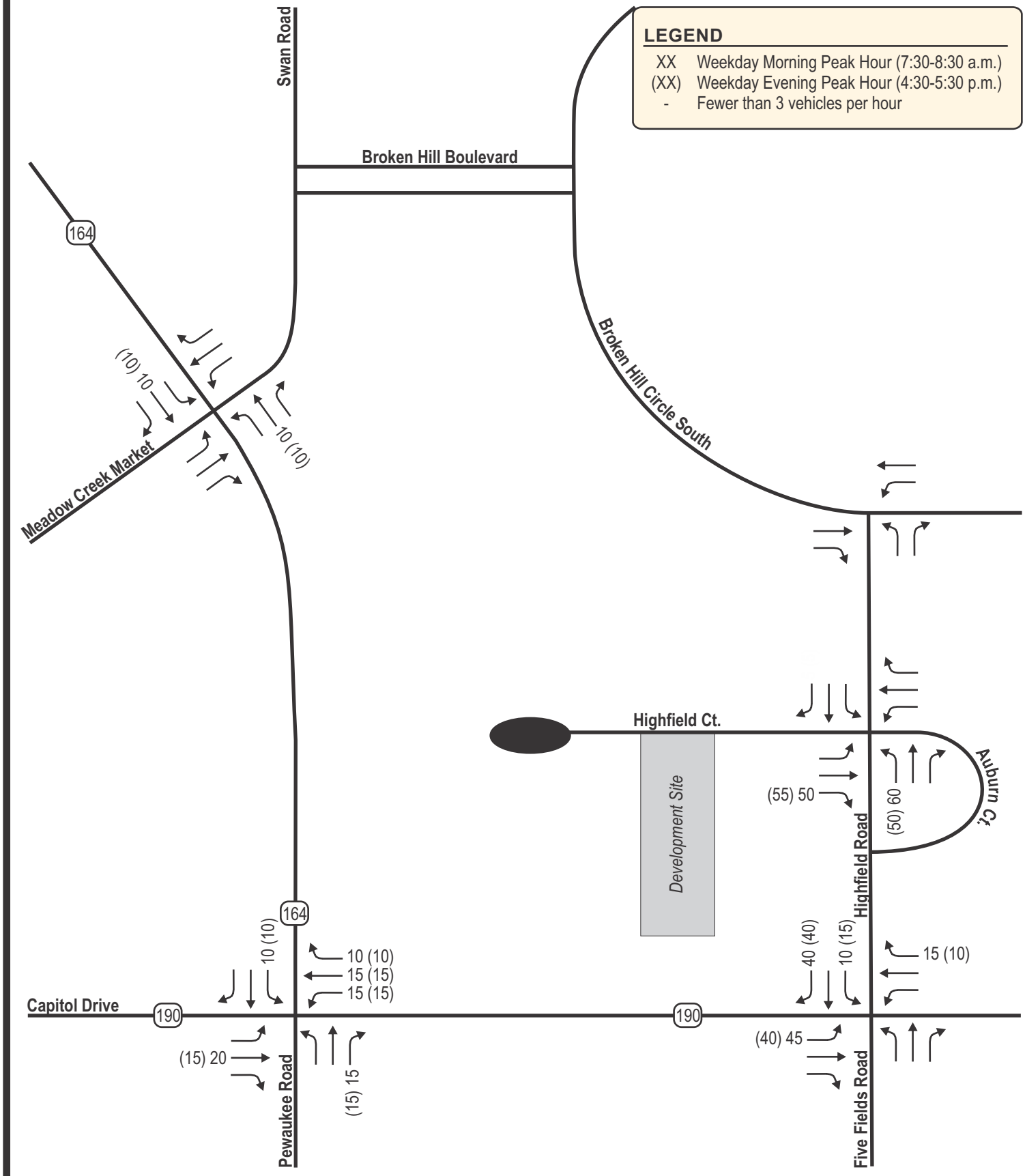
TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

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NOT TO SCALE

EXHIBIT 5
TRIP GENERATION & TRIP DISTRIBUTION

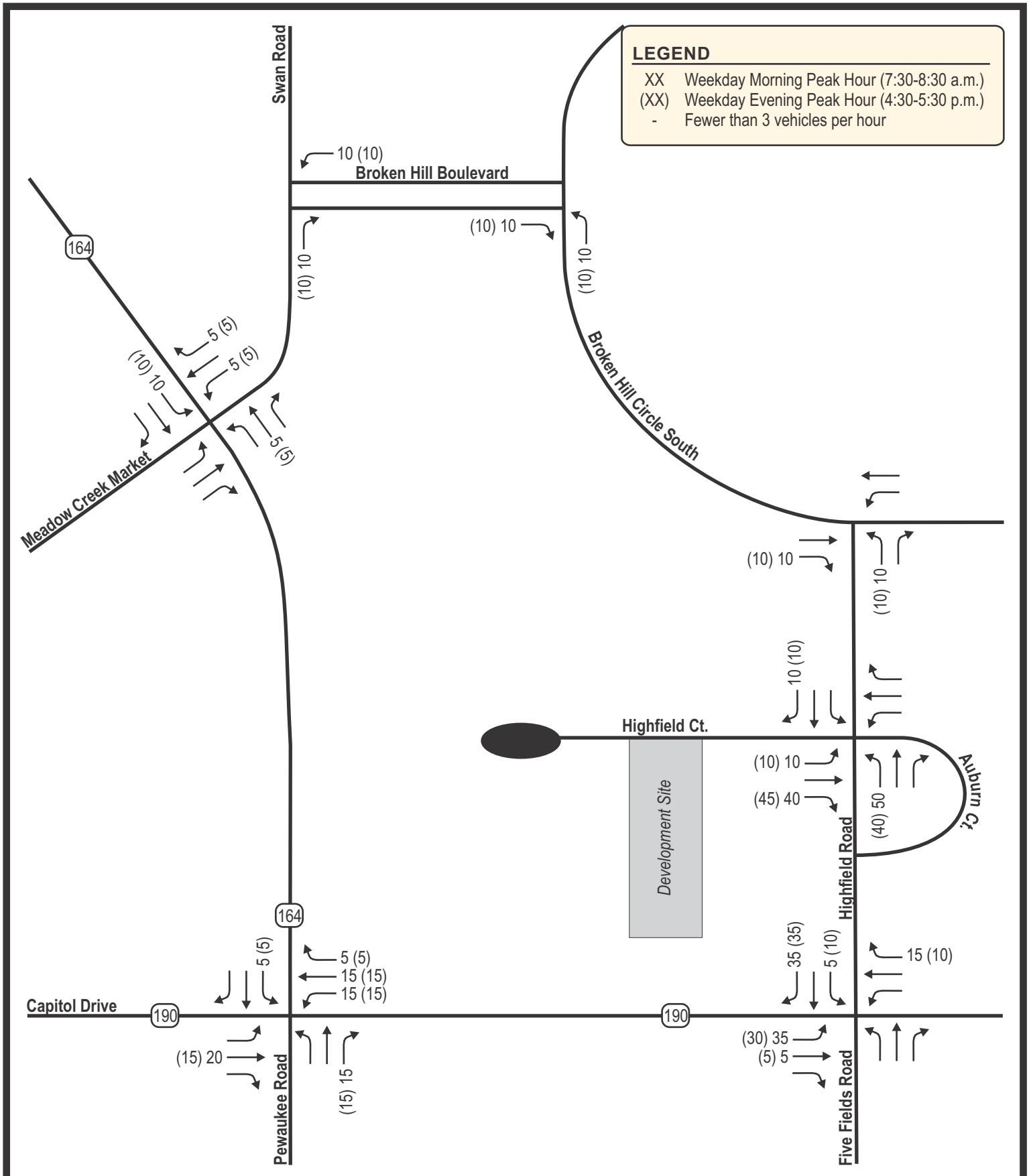


TADI
TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

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NOT TO SCALE

EXHIBIT 6
SCENARIO A NEW TRIPS
WITHOUT CUT-THROUGH TRAFFIC



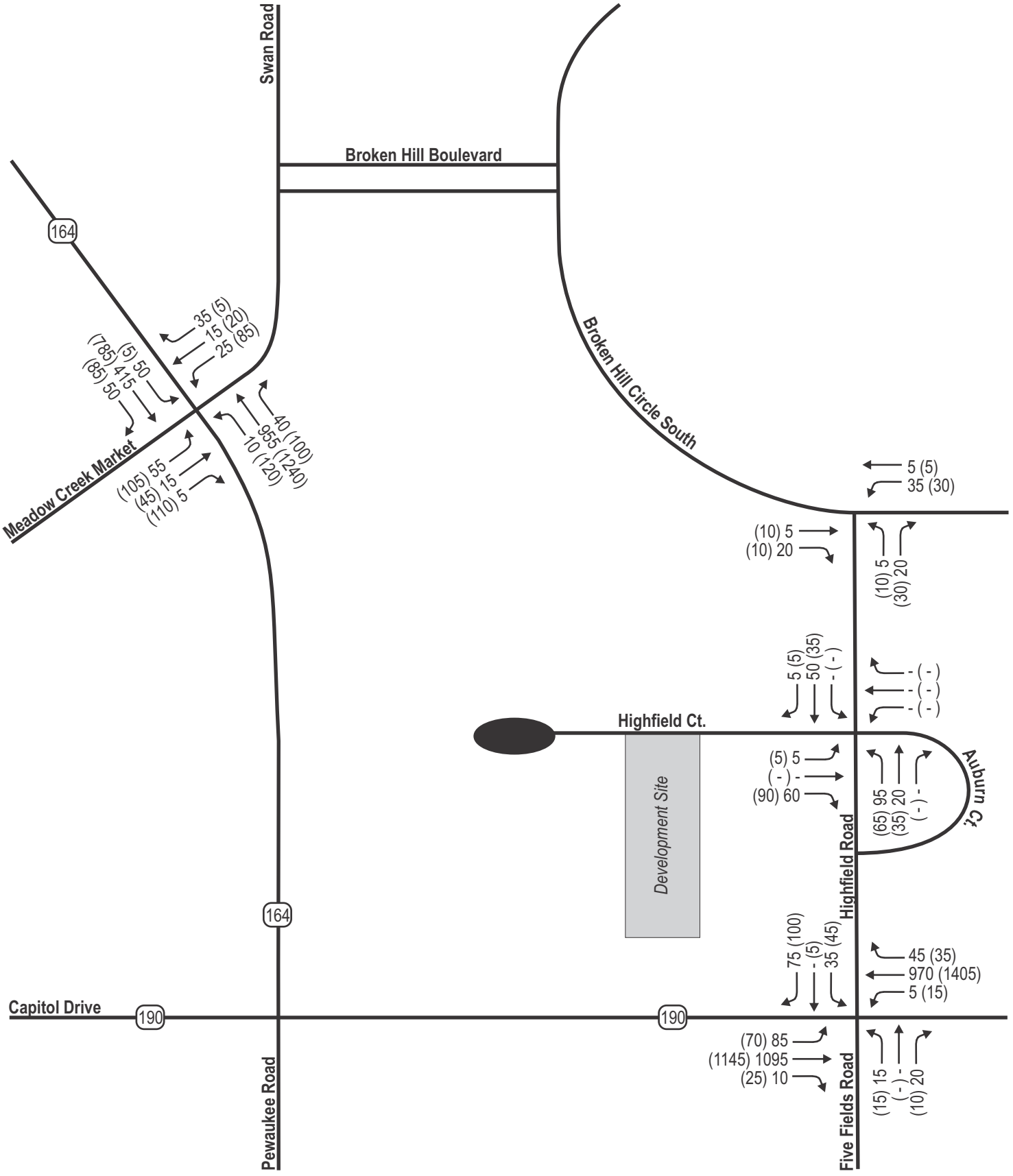
TADI TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 7
SCENARIO B NEW TRIPS
WITH CUT-THROUGH TRAFFIC



TADI
TRAFFIC ANALYSIS & DESIGN, INC.

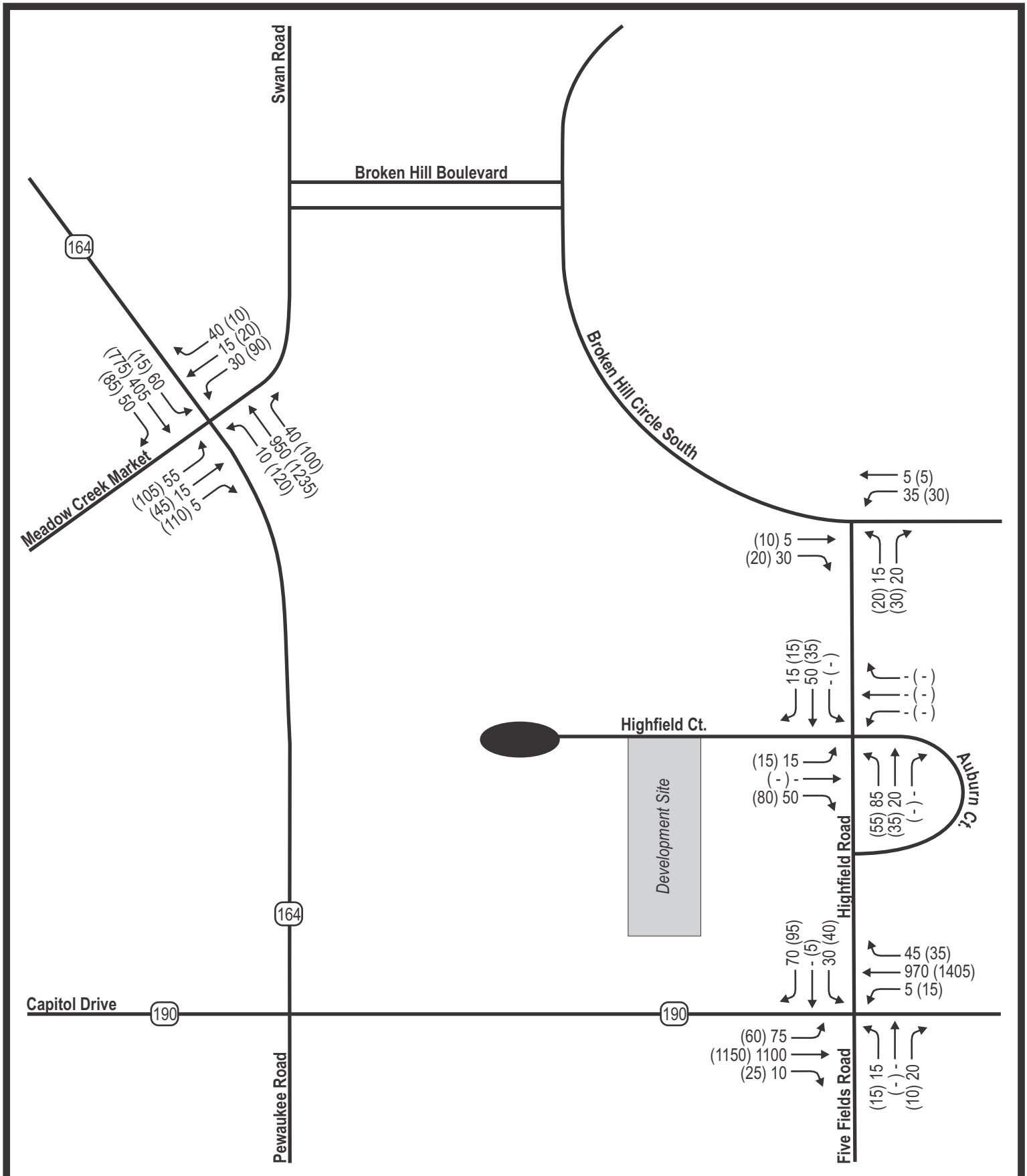
3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 8
SCENARIO A BUILD PEAK HOUR TRAFFIC VOLUMES
WITHOUT CUT-THROUGH TRAFFIC

EARLY CHILDHOOD SCHOOL TIA - PEWAUKEE, WISCONSIN



TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 9
SCENARIO B BUILD PEAK HOUR TRAFFIC VOLUMES
WITH CUT-THROUGH TRAFFIC

EARLY CHILDHOOD SCHOOL TIA - PEWAUKEE, WISCONSIN

Year 2023 Existing Traffic Peak Hour Operating Conditions

With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
Pewaukee Road & Swan Road *Traffic Signal Control*		*Lanes->*	*1*	*1>*		*1*	*1>*		*1*	*2*	*1*	*1*	*2*	*1*	
	AM	LOS	D	D		D	D		A	A	A	A	A	A	A
		Delay	39	35		36	36		4	4	3	7	6	5	8
		Queue	65'	30'		35'	60'		5'	140'	10'	40'	90'	20'	
	PM	LOS	C	C		D	C		A	A	A	B	B	B	B
		Delay	30	31		37	27		8	8	5	11	14	11	13
		Queue	100'	135'		85'	30'		35'	205'	25'	5'	180'	35'	
Highfield Road/Five Fields Road & Capitol Drive *Stop Sign Control (NB/SB)*		*Lanes->*	*1*	*2*	*1*	*1*	*2*	*1*	*<1>*			*1*		*1>*	
	AM	LOS	B	*	*	B	*	*	C			D		B	A
		Delay	11	*	*	11	*	*	23			28		12	1
		Queue	5'	*	*	0'	*	*	15'			15'		5'	
	PM	LOS	B	*	*	B	*	*	D			F		C	A
		Delay	13	*	*	11	*	*	28			53		17	1
		Queue	5'	*	*	5'	*	*	15'			35'		15'	
Highfield Road & Highfield Ct./Auburn Ct. *Stop Sign Control (EB/WB)*		*Lanes->*	*<1>*			*<1>*			*<1>*			*<1>*			
	AM	LOS	A			A			A			A			A
		Delay	9			9			7			7			3
		Queue	5'			0'			5'			0'			
	PM	LOS	A			A			A			A			A
		Delay	8			9			7			7			3
		Queue	5'			0'			0'			0'			
Highfield Road & Broken Hills Circle South *Stop Sign Control (NB)*		*Lanes->*	-	*1>*		*<1*		-	*<1>*			-			
	AM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	8			-			5
		Queue	-	*		5'		-	5'			-			
	PM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	8			-			6
		Queue	-	*		5'		-	5'			-			

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement; (< or >) indicates a shared turn lane movement.

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

U-Turns, if any, are included in the left-turn volume.

TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 10
EXISTING TRAFFIC LOS & QUEUES

Year 2023 Build Scenario A Traffic Peak Hour Operating Conditions

With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
		Lanes->	*1*	*1>*		*1*	*1>*		*1*	*2*	*1*	*1*	*2*	*1*	
Pewaukee Road & Swan Road *Traffic Signal Control*	AM	LOS	D	D		D	D		A	A	A	A	A	A	A
		Delay	39	35		36	36		4	4	3	7	6	5	8
		Queue	65'	30'		35'	60'		5'	145'	10'	40'	95'	20'	
	PM	LOS	C	C		D	C		A	A	A	B	B	B	B
		Delay	30	31		37	27		8	8	5	12	14	11	13
		Queue	100'	135'		85'	30'		35'	210'	25'	5'	185'	35'	
		Lanes->	*1*	*2*	*1*	*1*	*2*	*1*	*<1>*			*1*		*1>*	
Highfield Road/Five Fields Road & Capitol Drive *Stop Sign Control (NB/SB)*	AM	LOS	B	*	*	B	*	*	D			E		B	A
		Delay	11	*	*	11	*	*	28			35		13	1
		Queue	15'	*	*	0'	*	*	20'			25'		15'	
	PM	LOS	B	*	*	B	*	*	E			F		C	A
		Delay	14	*	*	11	*	*	36			81		19	2
		Queue	15'	*	*	5'	*	*	20'			65'		30'	
		Lanes->	*<1>*			*<1>*			*<1>*			*<1>*			
Highfield Road & Highfield Ct./Auburn Ct. *Stop Sign Control (EB/WB)*	AM	LOS	A			B			A			A			A
		Delay	9			10			7			7			5
		Queue	10'			0'			5'			0'			
	PM	LOS	A			B			A			A			A
		Delay	9			10			7			7			5
		Queue	10'			0'			5'			0'			
		Lanes->	-	*1>*		*<1*		-	*<1>*			-			
Highfield Road & Broken Hills Circle South *Stop Sign Control (NB)*	AM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	8			-			5
		Queue	-	*		5'		-	5'			-			
	PM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	8			-			6
		Queue	-	*		5'		-	5'			-			

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement; (< or >) indicates a shared turn lane movement.

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

U-Turns, if any, are included in the left-turn volume.

TADI TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 11

SCENARIO A BUILD TRAFFIC LOS & QUEUES

WITHOUT CUT-THROUGH TRAFFIC

Year 2023 Build Scenario B Traffic Peak Hour Operating Conditions

With Existing Geometrics and Traffic Control

Intersection	Peak Hour	Metric	Level of Service (LOS) per Movement by Approach												I/S LOS & Delay
			Eastbound			Westbound			Northbound			Southbound			
			↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙	
		Lanes->	*1*	*1>*		*1*	*1>*		*1*	*2*	*1*	*1*	*2*	*1*	
Pewaukee Road & Swan Road *Traffic Signal Control*	AM	LOS	D	D		D	D		A	A	A	A	A	A	A
		Delay	39	35		36	36		4	5	3	8	6	5	8
		Queue	65'	30'		45'	65'		5'	145'	10'	40'	90'	20'	
	PM	LOS	C	C		D	C		A	A	A	B	B	B	B
		Delay	31	31		37	28		8	8	5	12	14	11	13
		Queue	100'	135'		90'	35'		35'	210'	25'	15'	180'	35'	
		Lanes->	*1*	*2*	*1*	*1*	*2*	*1*	*<1>*			*1*		*1>*	
Highfield Road/Five Fields Road & Capitol Drive *Stop Sign Control (NB/SB)*	AM	LOS	B	*	*	B	*	*	D			D		B	A
		Delay	11	*	*	11	*	*	27			33		13	1
		Queue	15'	*	*	0'	*	*	20'			20'		15'	
	PM	LOS	B	*	*	B	*	*	D			F		C	A
		Delay	14	*	*	11	*	*	34			70		18	2
		Queue	15'	*	*	5'	*	*	15'			55'		30'	
		Lanes->	*<1>*			*<1>*			*<1>*			*<1>*			
Highfield Road & Highfield Ct./Auburn Ct. *Stop Sign Control (EB/WB)*	AM	LOS	A			B			A			A			A
		Delay	9			10			7			7			5
		Queue	10'			0'			5'			0'			
	PM	LOS	A			B			A			A			A
		Delay	9			10			7			7			5
		Queue	10'			0'			5'			0'			
		Lanes->	-	*1>*		*<1*		-	*<1>*			-			
Highfield Road & Broken Hills Circle South *Stop Sign Control (NB)*	AM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	9			-			5
		Queue	-	*		5'		-	5'			-			
	PM	LOS	-	*		A		-	A			-			A
		Delay	-	*		7		-	8			-			5
		Queue	-	*		5'		-	5'			-			

(-) indicates a movement that is prohibited or does not exist; (*) indicates a freeflow movement; (< or >) indicates a shared turn lane movement.

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

U-Turns, if any, are included in the left-turn volume.

TADI TRAFFIC ANALYSIS & DESIGN, INC.

3072: 05-02-2023

N

NOT TO SCALE

EXHIBIT 12

SCENARIO B BUILD TRAFFIC LOS & QUEUES

WITH CUT-THROUGH TRAFFIC

APPENDIX A

TRAFFIC COUNTS

Intersection Traffic Volume Report

Count Basics	Version 2022.11.2		Page 1 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Base Information, Observed (5.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **STH 164**
Minor St: **SWAN RD**
Intersection of: ***STH 164 & SWAN RD***

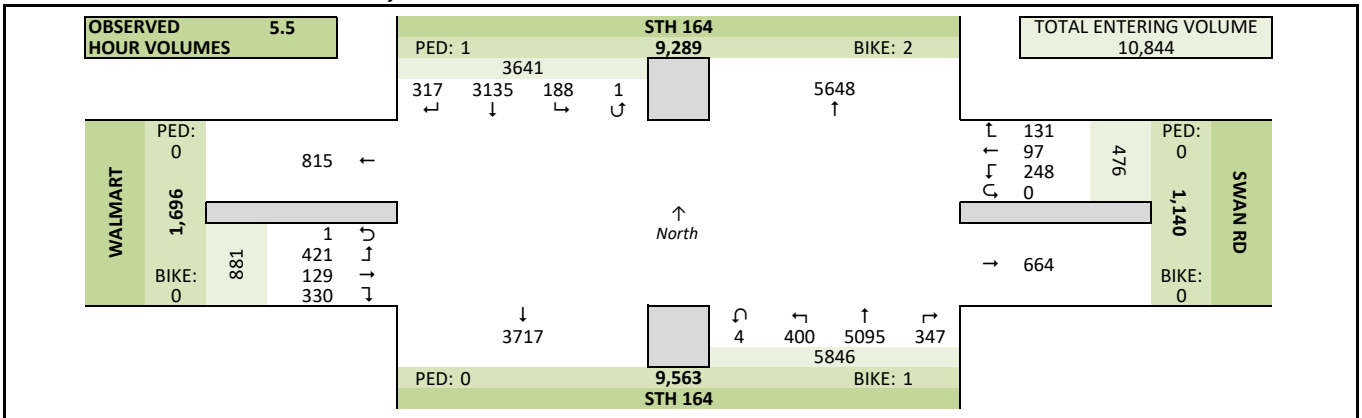
Site Information

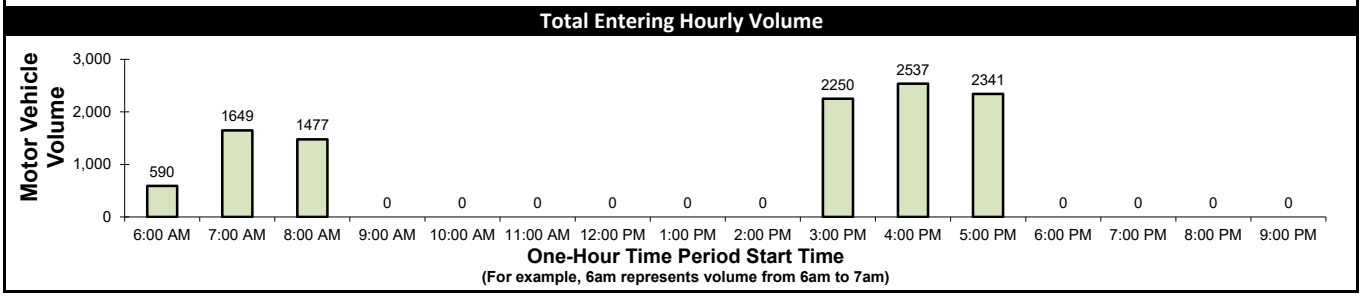
Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	STH 164		
East Leg	SWAN RD		
South Leg	STH 164		
West Leg	WALMART		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

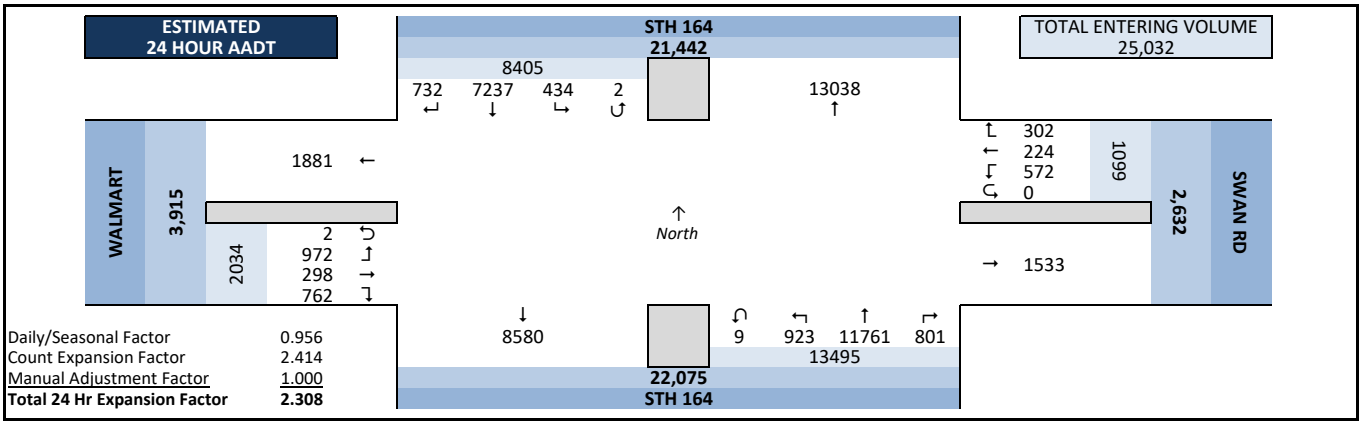
Hrs Counted:	06:30 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Tuesday, April 11, 2023			Weather	
AM Peak Period	Tuesday, April 11, 2023			Clear & Dry	
Midday Peak Period	Tuesday, April 11, 2023			Clear & Dry	
PM Peak Period	Tuesday, April 11, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:15-8:15am	MD		PM	4:15-5:15pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	0.956	Count Expansion Factor	2.414		
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers: AM Peak Period	LuAnn Gaertner				
Observers: Midday Peak Period	None				
Observers: PM Peak Period	Lori Atwell				
Comments	2021 DOT Daily & Seasonal Factors				

Observed 5.5 Hour Volume Summary





Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

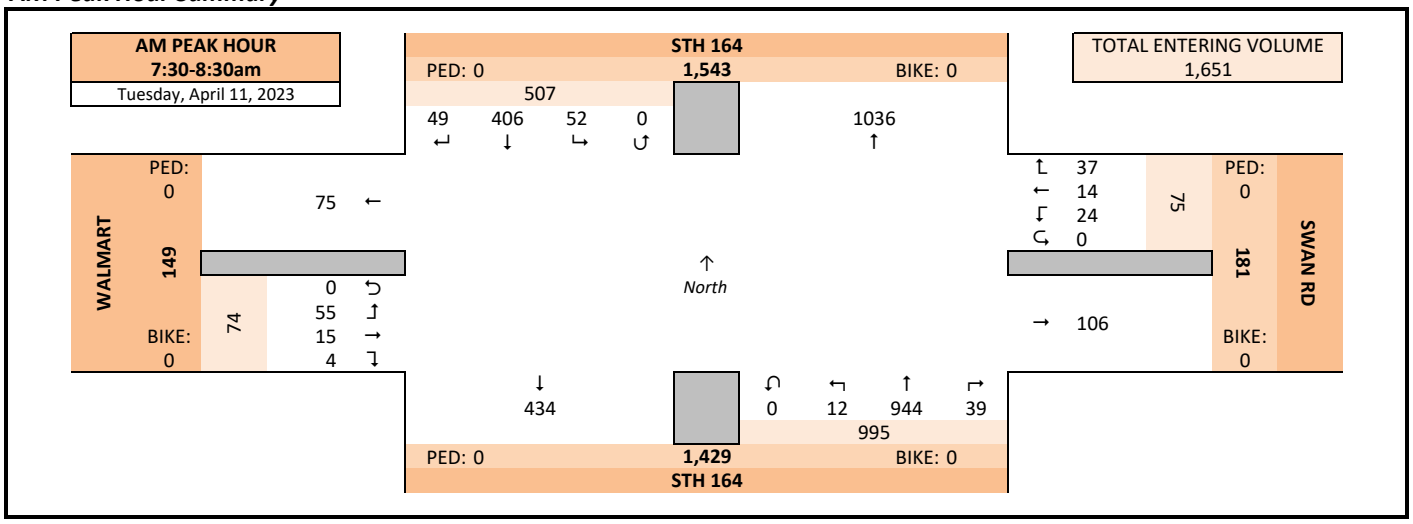
Peak Hour Volume Graphical Summary

STH 164 & SWAN RD

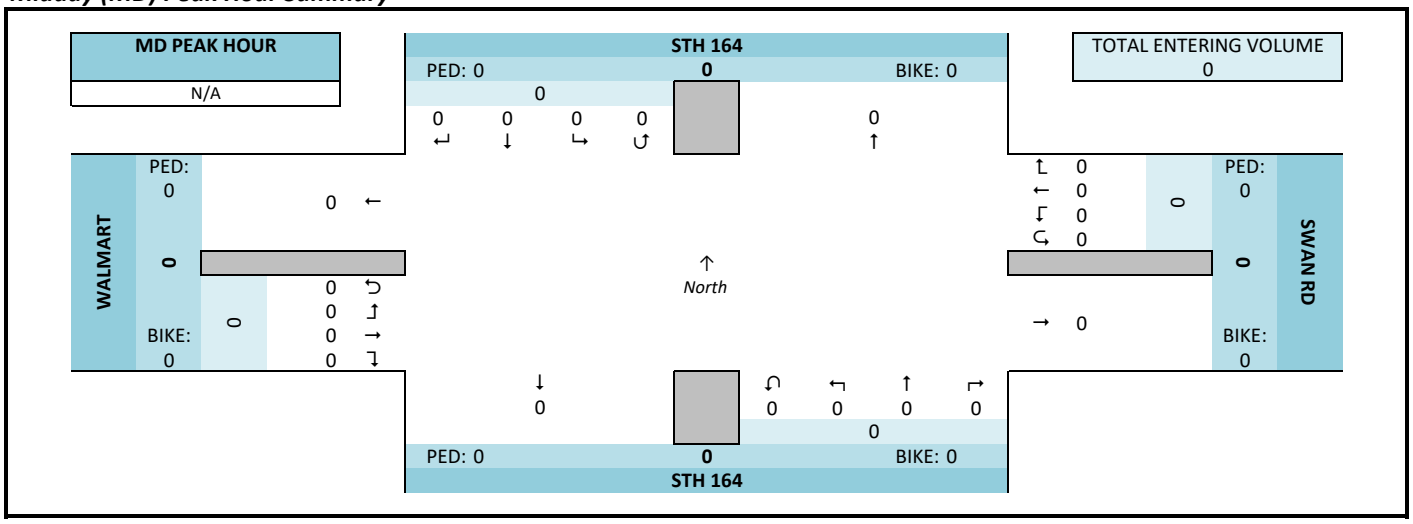
All Motor Vehicles



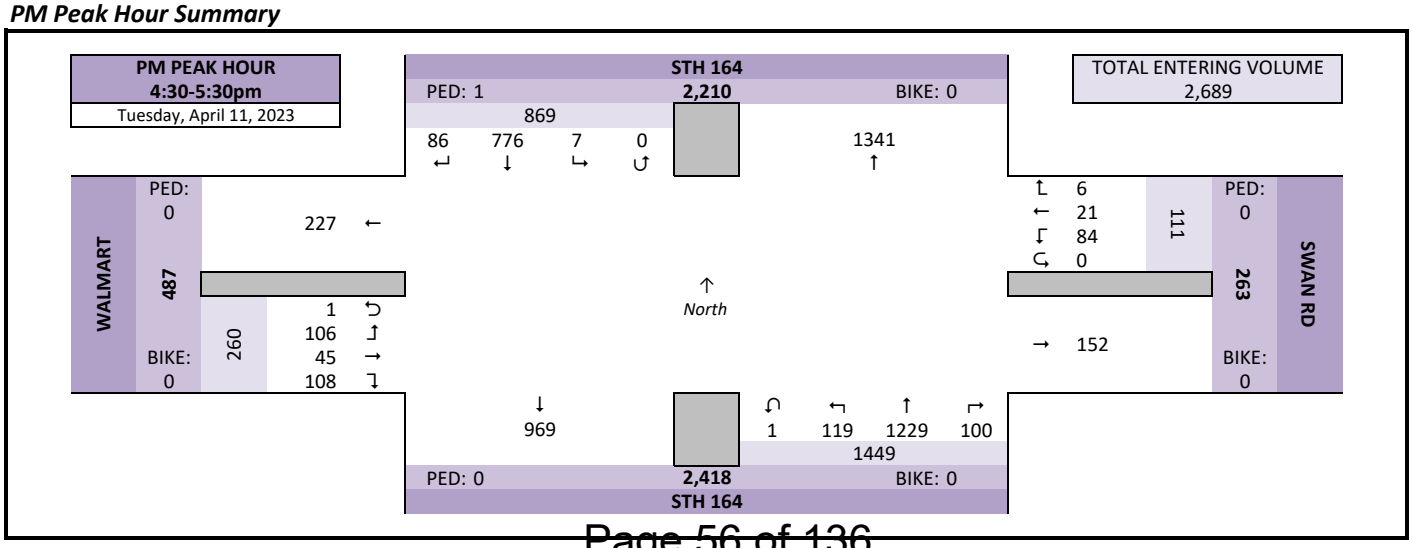
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

STH 164 & SWAN RD

All Motor Vehicles



Peak Hour Volumes, Truck Percentages, and PHFs

Tuesday, April 11, 2023		From North					From East					From South					From West					
	AM Peak Hour	STH 164					SWAN RD					STH 164					WALMART					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:30 AM	7	90	10	0	107	13	3	5	0	21	7	284	1	0	292	2	2	15	0	19	439
	7:45 AM	20	115	15	0	150	9	6	3	0	18	8	258	2	0	268	1	5	14	0	20	456
	8:00 AM	13	102	11	0	126	6	3	5	0	14	13	202	4	0	219	0	2	14	0	16	375
	8:15 AM	9	99	16	0	124	9	2	11	0	22	11	200	5	0	216	1	6	12	0	19	381
	Peak Hour Volume	49	406	52	0	507	37	14	24	0	75	39	944	12	0	995	4	15	55	0	74	1651
	Rounded Hourly Volume	50	405	50	0	505	35	15	25	0	75	40	945	10	0	995	5	15	55	0	75	1650
	% Single Unit Trucks	16.3	8.1	3.8	0.0	8.5	5.4	14.3	0.0	0.0	5.3	5.1	4.2	25.0	0.0	4.5	0.0	13.3	5.5	0.0	6.8	5.9
	% Heavy Trucks	2.0	2.2	3.8	0.0	2.4	8.1	0.0	0.0	0.0	4.0	0.0	1.3	0.0	0.0	1.2	25.0	0.0	1.8	0.0	2.7	1.8
	% Trucks (Total)	18.4	10.3	7.7	0.0	10.8	13.5	14.3	0.0	0.0	9.3	5.1	5.5	25.0	0.0	5.7	25.0	13.3	7.3	0.0	9.5	7.6
	Peak Hour Factor (PHF)	0.61	0.88	0.81	0.00	0.84	0.71	0.58	0.55	0.00	0.85	0.75	0.83	0.60	0.00	0.85	0.50	0.62	0.92	0.00	0.92	0.91

N/A		From North					From East					From South					From West					
	MD Peak Hour	STH 164					SWAN RD					STH 164					WALMART					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tuesday, April 11, 2023		From North					From East					From South					From West					
	PM Peak Hour	STH 164					SWAN RD					STH 164					WALMART					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	20	218	1	0	239	3	2	26	0	31	28	321	36	0	385	19	6	22	0	47	702
	4:45 PM	19	182	2	0	203	0	9	17	0	26	22	322	23	0	367	33	12	19	1	65	661
	5:00 PM	25	201	2	0	228	2	6	19	0	27	29	286	35	0	350	28	19	43	0	90	695
	5:15 PM	22	175	2	0	199	1	4	22	0	27	21	300	25	1	347	28	8	22	0	58	631
	Peak Hour Volume	86	776	7	0	869	6	21	84	0	111	100	1229	119	1	1449	108	45	106	1	260	2689
	Rounded Hourly Volume	85	775	5	0	865	5	20	85	0	110	100	1230	120	0	1450	110	45	105	0	260	2685
	% Single Unit Trucks	1.2	2.7	0.0	0.0	2.5	0.0	0.0	4.8	0.0	3.6	0.0	1.5	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.6
	% Heavy Trucks	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
	% Trucks (Total)	1.2	3.5	0.0	0.0	3.2	0.0	0.0	4.8	0.0	3.6	0.0	1.6	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	1.9
	Peak Hour Factor (PHF)	0.86	0.89	0.87	0.00	0.91	0.50	0.58	0.81	0.00	0.90	0.86	0.95	0.83	0.25	0.94	0.82	0.59	0.62	0.25	0.72	0.96

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		STH 164			SWAN RD			STH 164			WALMART			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	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
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	1	0	1	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	0	0	0	0	0	0	0	0	0	1

Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

STH 164 & SWAN RD

All Motor Vehicles



15-Minute Motor Vehicle Data

	15-Minute Time Period	From North (↓) STH 164					From East (←) SWAN RD					From South (↑) STH 164					From West (→) WALMART					15-Min	Hourly	
	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	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	6	63	15	0	84	7	1	2	0	10	9	158	1	0	168	1	2	6	0	9	271	1344	0.84
	6:45 AM	9	82	14	0	105	8	3	2	0	13	11	172	0	0	183	2	3	13	0	18	319	1512	0.86
	7:00 AM	7	71	13	0	91	21	1	5	0	27	10	198	4	0	212	1	1	20	0	22	352	1649	0.90
	7:15 AM	14	103	13	0	130	11	2	7	0	20	8	229	4	0	241	1	2	8	0	11	402	1672	0.92
	7:30 AM	7	90	10	0	107	13	3	5	0	21	7	284	1	0	292	2	2	15	0	19	439	1651	0.91
	7:45 AM	20	115	15	0	150	9	6	3	0	18	8	258	2	0	268	1	5	14	0	20	456	1562	0.86
	8:00 AM	13	102	11	0	126	6	3	5	0	14	13	202	4	0	219	0	2	14	0	16	375	1477	0.97
	8:15 AM	9	99	16	0	124	9	2	11	0	22	11	200	5	0	216	1	6	12	0	19	381		
	8:30 AM	14	98	34	1	147	5	7	6	0	18	7	160	2	0	169	1	1	14	0	16	350		
	8:45 AM	9	104	20	0	133	16	3	14	0	33	25	165	2	0	192	0	3	10	0	13	371		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	14	172	2	0	188	4	4	14	0	22	21	210	29	1	261	22	8	33	0	63	534	2250	0.95
	3:15 PM	19	167	2	0	188	3	6	17	0	26	9	233	28	0	270	30	8	22	0	60	544	2246	0.95
	3:30 PM	17	188	3	0	208	1	3	7	0	11	22	259	41	1	323	16	6	16	0	38	580	2346	0.91
	3:45 PM	18	197	5	0	220	3	4	9	0	16	24	241	32	0	297	30	3	26	0	59	592	2468	0.88
	4:00 PM	12	153	1	0	166	4	9	14	0	27	11	229	38	1	279	31	5	22	0	58	530	2537	0.90
	4:15 PM	12	208	2	0	222	3	4	19	0	26	14	268	35	0	317	34	13	32	0	79	644	2702	0.96
	4:30 PM	20	218	1	0	239	3	2	26	0	31	28	321	36	0	385	19	6	22	0	47	702	2689	0.96
	4:45 PM	19	182	2	0	203	0	9	17	0	26	22	322	23	0	367	33	12	19	1	65	661	2526	0.91
	5:00 PM	25	201	2	0	228	2	6	19	0	27	29	286	35	0	350	28	19	43	0	90	695	2341	0.84
	5:15 PM	22	175	2	0	199	1	4	22	0	27	21	300	25	1	347	28	8	22	0	58	631		
	5:30 PM	15	173	4	0	192	1	6	8	0	15	23	223	35	0	281	25	9	17	0	51	539		
	5:45 PM	16	174	1	0	191	1	9	16	0	26	14	177	18	0	209	24	5	21	0	50	476		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0		
	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		317	3135	188	1	3641	131	97	248	0	476	347	5095	400	4	5846	330	129	421	1	881	10844		

Peak Hour All Vehicle Volume Summary

	Hourly Time Period	From North (↓) STH 164					From East (←) SWAN RD					From South (↑) STH 164					From West (→) WALMART					Total Hourly	
	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	Volume	PHF
AM	7:30 AM	49	406	52	0	507	37	14	24	0	75	39	944	12	0	995	4	15	55	0	74	1651	0.91
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	86	776	7	0	869	6	21	84	0	111	108	1329	99	5	1441	108	45	106	1	260	2689	0.96

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

STH 164 & SWAN RD



15-Minute Heavy Vehicle Data

	15-Minute	From North					From East					From South					From West						
	Time Period	STH 164					SWAN RD					STH 164					WALMART					15-Min	Hourly
	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	Sum
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	1	1	2	0	4	0	0	0	0	0	1	14	0	0	15	0	0	0	0	0	19	67
	6:45 AM	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	11	78
	7:00 AM	0	7	2	0	9	1	0	0	0	1	1	12	0	0	13	0	0	1	0	1	24	95
	7:15 AM	2	3	2	0	7	1	0	0	0	1	0	4	1	0	5	0	0	0	0	0	13	102
	7:30 AM	1	7	3	0	11	1	0	0	0	1	0	17	1	0	18	0	0	0	0	0	30	126
	7:45 AM	4	9	1	0	14	1	0	0	0	1	0	12	0	0	12	0	1	0	0	1	28	121
	8:00 AM	2	11	0	0	13	2	1	0	0	3	1	10	2	0	13	0	0	2	0	2	31	126
	8:15 AM	2	15	0	0	17	1	1	0	0	2	1	13	0	0	14	1	1	2	0	4	37	
	8:30 AM	2	8	3	0	13	0	0	2	0	2	1	9	0	0	10	0	0	0	0	0	25	
	8:45 AM	0	15	2	0	17	1	0	0	0	1	0	14	0	0	14	0	1	0	0	1	33	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	2	8	0	0	10	0	1	0	0	1	2	10	0	0	12	1	0	0	0	1	24	81
	3:15 PM	0	12	0	0	12	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	18	68
	3:30 PM	1	6	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	14	71
	3:45 PM	0	10	1	0	11	0	0	1	0	1	1	10	1	0	12	0	1	0	0	1	25	73
	4:00 PM	0	5	0	0	5	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	11	58
	4:15 PM	0	9	0	0	9	1	0	3	0	4	0	7	1	0	8	0	0	0	0	0	21	60
	4:30 PM	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	16	52
	4:45 PM	0	4	0	0	4	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	10	50
	5:00 PM	0	9	0	0	9	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	13	48
	5:15 PM	1	5	0	0	6	0	0	3	0	3	0	4	0	0	4	0	0	0	0	0	13	
	5:30 PM	1	4	0	0	5	0	0	0	0	0	0	7	2	0	9	0	0	0	0	0	14	
	5:45 PM	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	8	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
	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		19	167	16	0	202	9	3	13	0	25	9	182	8	0	199	2	4	6	0	12	438	

Peak Hour Heavy Vehicle Volume Summary

	Hourly	From North					From East					From South					From West					Total
	Time Period	STH 164					SWAN RD					STH 164					WALMART					Hourly
	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	Volume
AM	7:30 AM	9	42	4	0	55	5	2	0	0	7	2	52	3	0	57	1	2	4	0	7	126
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	1	27	0	0	28	0	0	4	0	4	0	20	0	0	20	0	0	0	0	0	52

Intersection Traffic Volume Report

Count Basics	Version 2022.11.2		Page 1 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Base Information, Observed (5.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **BROKEN HILL CIR S**
Minor St: **HIGHFIELD RD**
Intersection of: ***BROKEN HILL CIR S & HIGHFIELD RD***

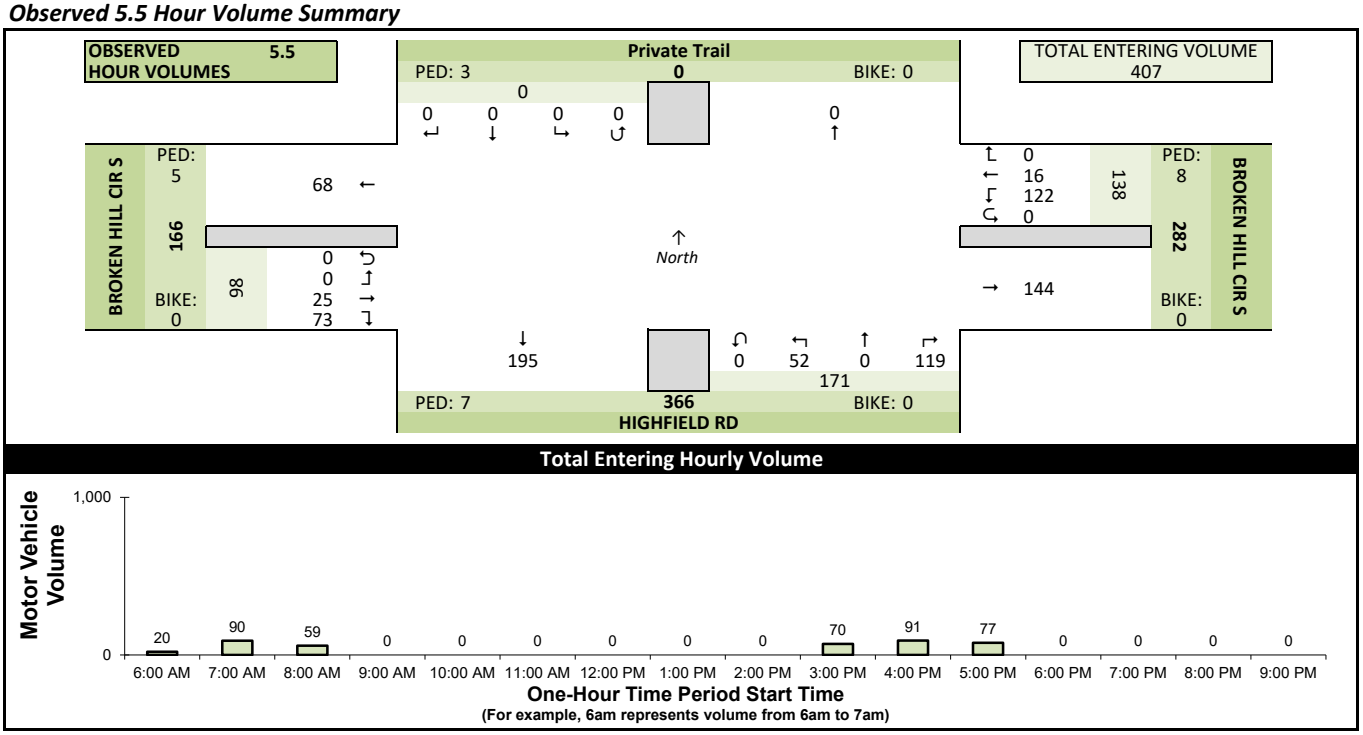
Site Information

Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Private Trail		
East Leg	BROKEN HILL CIR S		
South Leg	HIGHFIELD RD		
West Leg	BROKEN HILL CIR S		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

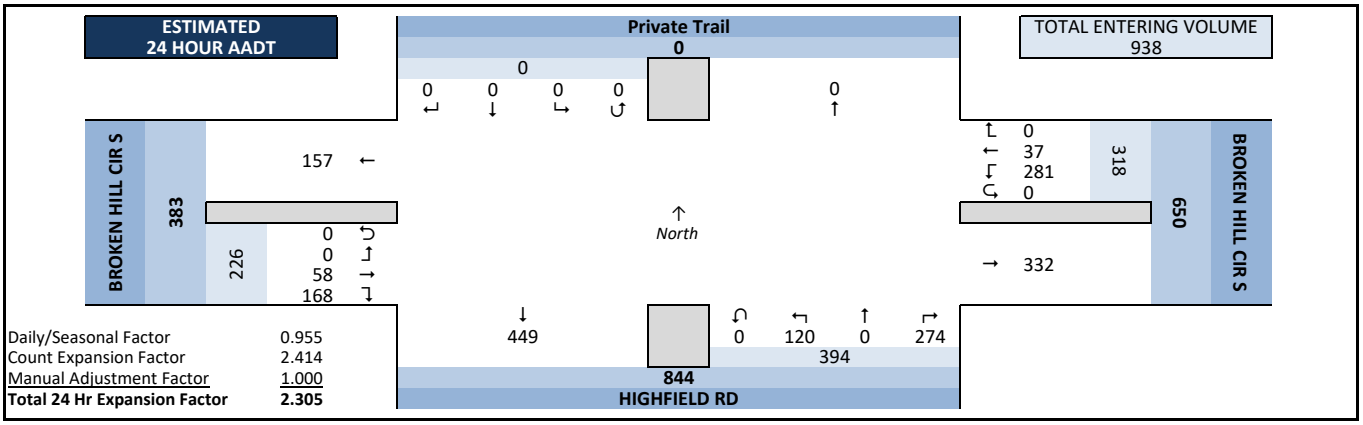
Count Information

Hrs Counted:	06:30 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Tuesday, April 11, 2023			Weather	
AM Peak Period	Wednesday, April 12, 2023			Clear & Dry	
Midday Peak Period	Tuesday, April 11, 2023			Clear & Dry	
PM Peak Period	Tuesday, April 11, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	0.955	Count Expansion Factor	2.414		
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers: AM Peak Period	Wendy Picard				
Observers: Midday Peak Period	None				
Observers: PM Peak Period	Dani Ruffalo				
Comments	2021 DOT Daily & Seasonal Factors				

Observed 5.5 Hour Volume Summary



Estimated 24 Hour AADT

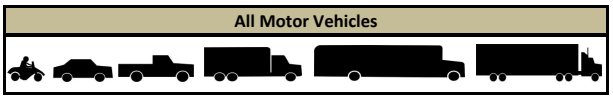


Intersection Traffic Volume Report

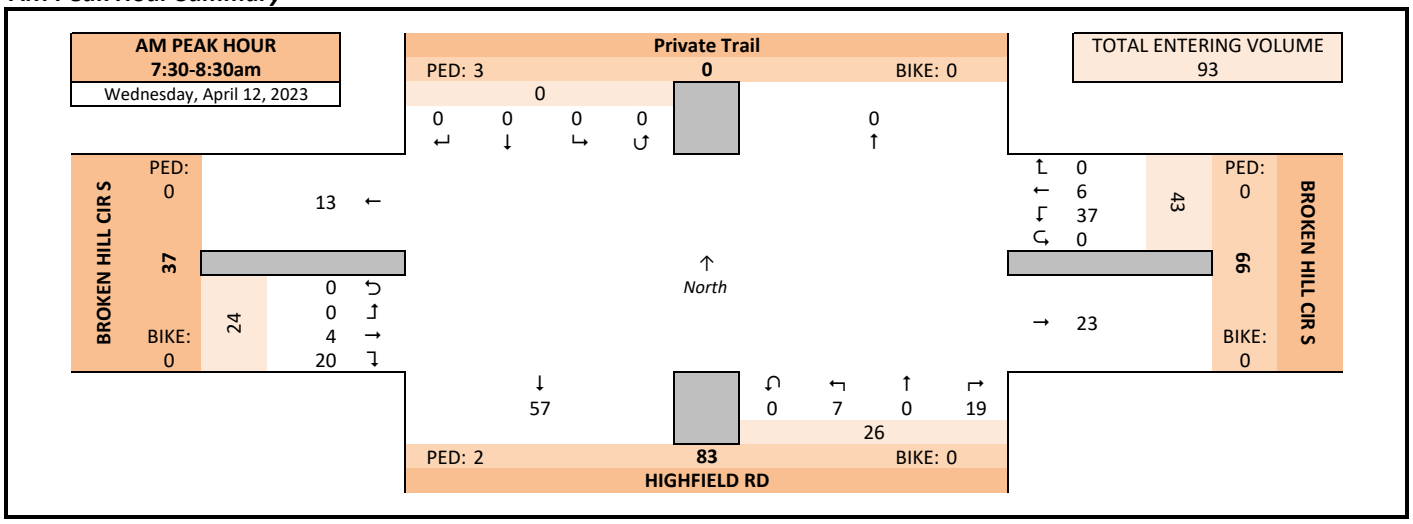
Count Basics			Page 2 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Graphical Summary

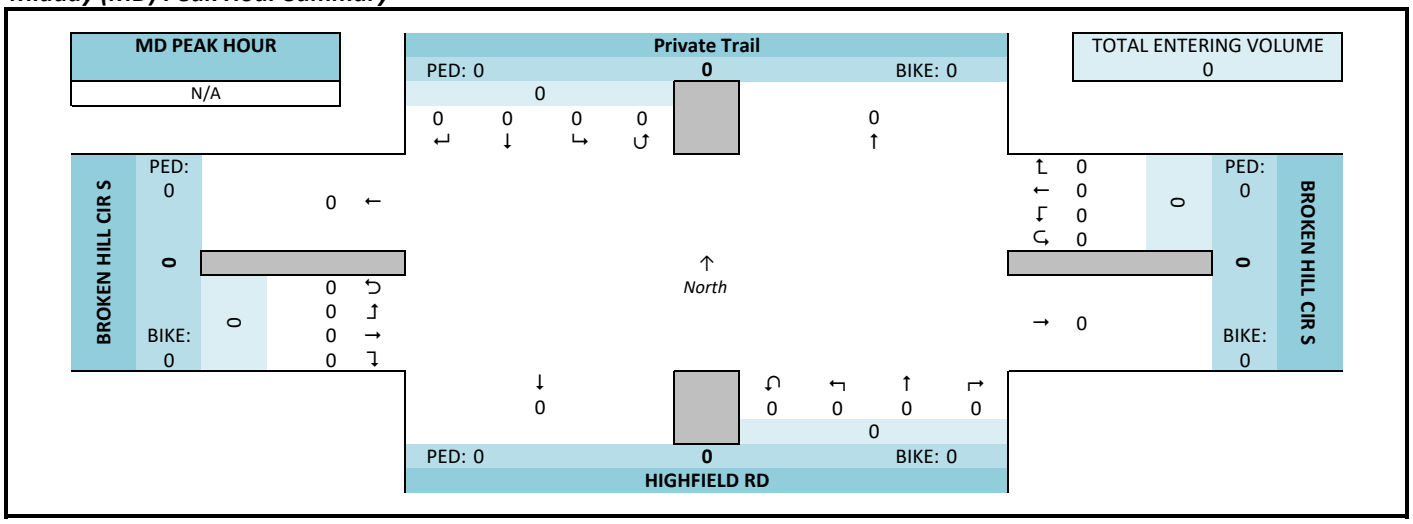
BROKEN HILL CIR S & HIGHFIELD RD



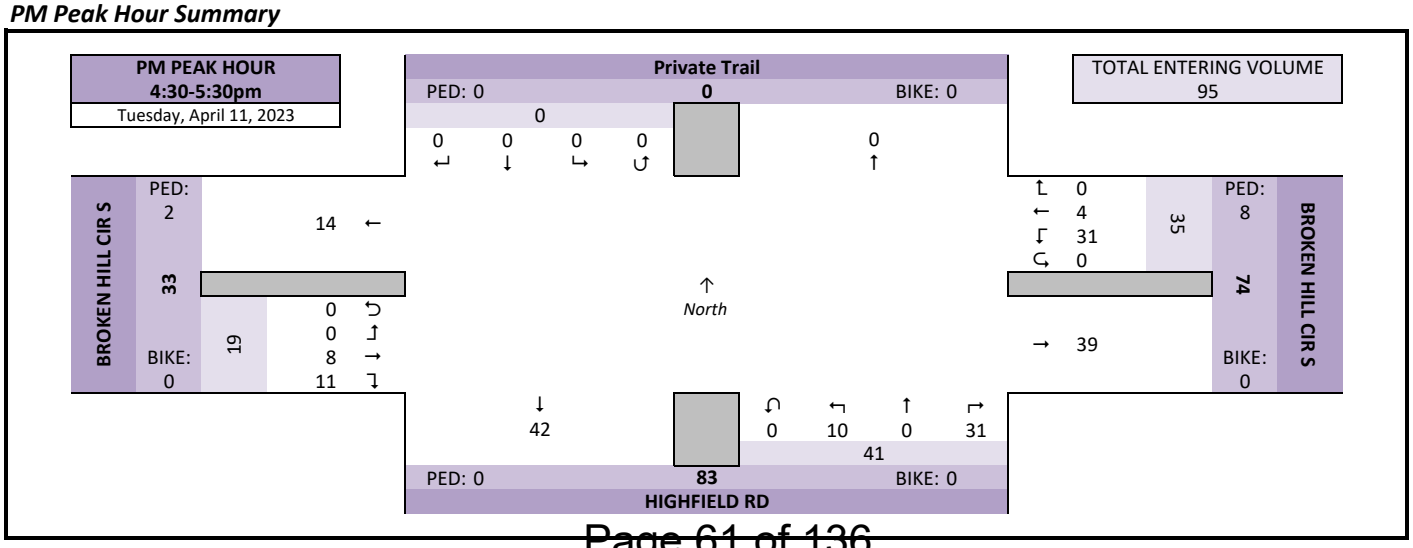
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

BROKEN HILL CIR S & HIGHFIELD RD

All Motor Vehicles



Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, April 12, 2023		From North					From East					From South					From West					
	AM Peak Hour	Private Trail					BROKEN HILL CIR S					HIGHFIELD RD					BROKEN HILL CIR S					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:30 AM	0	0	0	0	0	0	2	6	0	8	5	0	3	0	8	4	1	0	0	5	21
	7:45 AM	0	0	0	0	0	0	1	13	0	14	7	0	1	0	8	7	1	0	0	8	30
	8:00 AM	0	0	0	0	0	0	1	6	0	7	4	0	0	0	4	6	1	0	0	7	18
	8:15 AM	0	0	0	0	0	0	2	12	0	14	3	0	3	0	6	3	1	0	0	4	24
	Peak Hour Volume	0	0	0	0	0	0	6	37	0	43	19	0	7	0	26	20	4	0	0	24	93
	Rounded Hourly Volume	0	0	0	0	0	0	5	35	0	40	20	0	5	0	25	20	5	0	0	25	90
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	14.3	0.0	11.5	10.0	50.0	0.0	0.0	16.7	7.5
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	14.3	0.0	11.5	10.0	50.0	0.0	0.0	16.7	7.5
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.71	0.00	0.77	0.68	0.00	0.58	0.00	0.81	0.71	1.00	0.00	0.00	0.75	0.77

N/A		From North					From East					From South					From West					
	MD Peak Hour	Private Trail					BROKEN HILL CIR S					HIGHFIELD RD					BROKEN HILL CIR S					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tuesday, April 11, 2023		From North					From East					From South					From West					
	PM Peak Hour	Private Trail					BROKEN HILL CIR S					HIGHFIELD RD					BROKEN HILL CIR S					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	0	0	0	0	0	0	0	8	0	8	9	0	2	0	11	5	3	0	0	8	27
	4:45 PM	0	0	0	0	0	0	3	11	0	14	6	0	3	0	9	2	2	0	0	4	27
	5:00 PM	0	0	0	0	0	0	0	9	0	9	8	0	3	0	11	3	2	0	0	5	25
	5:15 PM	0	0	0	0	0	0	1	3	0	4	8	0	2	0	10	1	1	0	0	2	16
	Peak Hour Volume	0	0	0	0	0	0	4	31	0	35	31	0	10	0	41	11	8	0	0	19	95
	Rounded Hourly Volume	0	0	0	0	0	0	5	30	0	35	30	0	10	0	40	10	10	0	0	20	95
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	8.6	3.2	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	4.2
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	0.0	8.6	3.2	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	4.2
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.70	0.00	0.62	0.86	0.00	0.83	0.00	0.93	0.55	0.67	0.00	0.00	0.59	0.88

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Private Trail			BROKEN HILL CIR S			HIGHFIELD RD			BROKEN HILL CIR S			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	1
	8:00 AM	2	0	2	0	0	0	1	0	1	0	0	0	3
	8:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	1
	Total	3	0	3	0	0	0	2	0	2	0	0	0	5
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	4	0	4	0	0	0	0	0	0	4
	4:45 PM	0	0	0	4	0	4	0	0	0	0	0	0	4
	5:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	8	0	8	0	0	0	2	0	2	10

Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

BROKEN HILL CIR S & HIGHFIELD RD

All Motor Vehicles



15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) Private Trail					From East (←) BROKEN HILL CIR S					From South (↑) HIGHFIELD RD					From West (→) BROKEN HILL CIR S					15-Min	Hourly	
	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	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	1	0	1	2	0	1	0	3	2	0	0	0	2	6	59	0.64
	6:45 AM	0	0	0	0	0	0	0	5	0	5	3	0	0	0	3	6	0	0	0	6	14	74	0.80
	7:00 AM	0	0	0	0	0	0	0	14	0	14	2	0	0	0	2	7	0	0	0	7	23	90	0.75
	7:15 AM	0	0	0	0	0	0	0	4	0	4	4	0	3	0	7	3	2	0	0	5	16	85	0.71
	7:30 AM	0	0	0	0	0	0	2	6	0	8	5	0	3	0	8	4	1	0	0	5	21	93	0.78
	7:45 AM	0	0	0	0	0	0	1	13	0	14	7	0	1	0	8	7	1	0	0	8	30	88	0.73
	8:00 AM	0	0	0	0	0	0	1	6	0	7	4	0	0	0	4	6	1	0	0	7	18	59	0.61
	8:15 AM	0	0	0	0	0	0	2	12	0	14	3	0	3	0	6	3	1	0	0	4	24		
	8:30 AM	0	0	0	0	0	0	1	7	0	8	4	0	1	0	5	2	1	0	0	3	16		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	1	0	1	4	0	4	0	8	3	1	0	0	4	13	70	0.83
	3:15 PM	0	0	0	0	0	0	2	1	0	3	9	0	4	0	13	2	2	0	0	4	20	80	0.87
	3:30 PM	0	0	0	0	0	0	1	3	0	4	4	0	5	0	9	3	0	0	0	3	16	74	0.80
	3:45 PM	0	0	0	0	0	0	0	4	0	4	5	0	3	0	8	5	4	0	0	9	21	85	0.79
	4:00 PM	0	0	0	0	0	0	1	6	0	7	7	0	6	0	13	3	0	0	0	3	23	91	0.84
	4:15 PM	0	0	0	0	0	0	0	3	0	3	5	0	2	0	7	2	2	0	0	4	14	93	0.86
	4:30 PM	0	0	0	0	0	0	0	8	0	8	9	0	2	0	11	5	3	0	0	8	27	95	0.88
	4:45 PM	0	0	0	0	0	0	3	11	0	14	6	0	3	0	9	2	2	0	0	4	27	90	0.83
	5:00 PM	0	0	0	0	0	0	0	9	0	9	8	0	3	0	11	3	2	0	0	5	25	77	0.77
	5:15 PM	0	0	0	0	0	0	1	3	0	4	8	0	2	0	10	1	1	0	0	2	16		
	5:30 PM	0	0	0	0	0	0	1	2	0	3	14	0	2	0	16	2	1	0	0	3	22		
	5:45 PM	0	0	0	0	0	0	0	3	0	3	5	0	4	0	9	2	0	0	0	2	14		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0		
	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	0	0	0	0	0	16	122	0	138	119	0	52	0	171	73	25	0	0	98	407		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) Private Trail					From East (←) BROKEN HILL CIR S					From South (↑) HIGHFIELD RD					From West (→) BROKEN HILL CIR S					Total Hourly	
	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	Volume	PHF
AM	7:30 AM	0	0	0	0	0	0	6	37	0	43	19	0	7	0	26	20	4	0	0	24	93	0.78
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	0	0	0	0	0	0	4	31	0	35	36	0	20	0	56	11	8	0	0	19	95	0.88

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

BROKEN HILL CIR S & HIGHFIELD RD



15-Minute Heavy Vehicle Data

	15-Minute	From North (↓)					From East (←)					From South (↑)					From West (→)					15-Min	Hourly
	Time Period	Private Trail					BROKEN HILL CIR S					HIGHFIELD RD					BROKEN HILL CIR S					Totals	Sum
	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		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	3	5
	6:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	3
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	7
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	7
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	3	5
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	4:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	4
	5:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
	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	0	0	0	0	0	0	3	0	3	9	0	2	0	11	5	2	0	0	7	21	

Peak Hour Heavy Vehicle Volume Summary

	Hourly	From North (↓)					From East (←)					From South (↑)					From West (→)					Total
	Time Period	Private Trail					BROKEN HILL CIR S					HIGHFIELD RD					BROKEN HILL CIR S					Hourly
	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	Volume
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	2	2	0	0	4	7
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	4

Intersection Traffic Volume Report

Count Basics	Version 2022.11.2		Page 1 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Base Information, Observed (5.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **HIGHFIELD RD**
Minor St: **HIGHFIELD COURT**
Intersection of: ***HIGHFIELD RD & HIGHFIELD COURT***

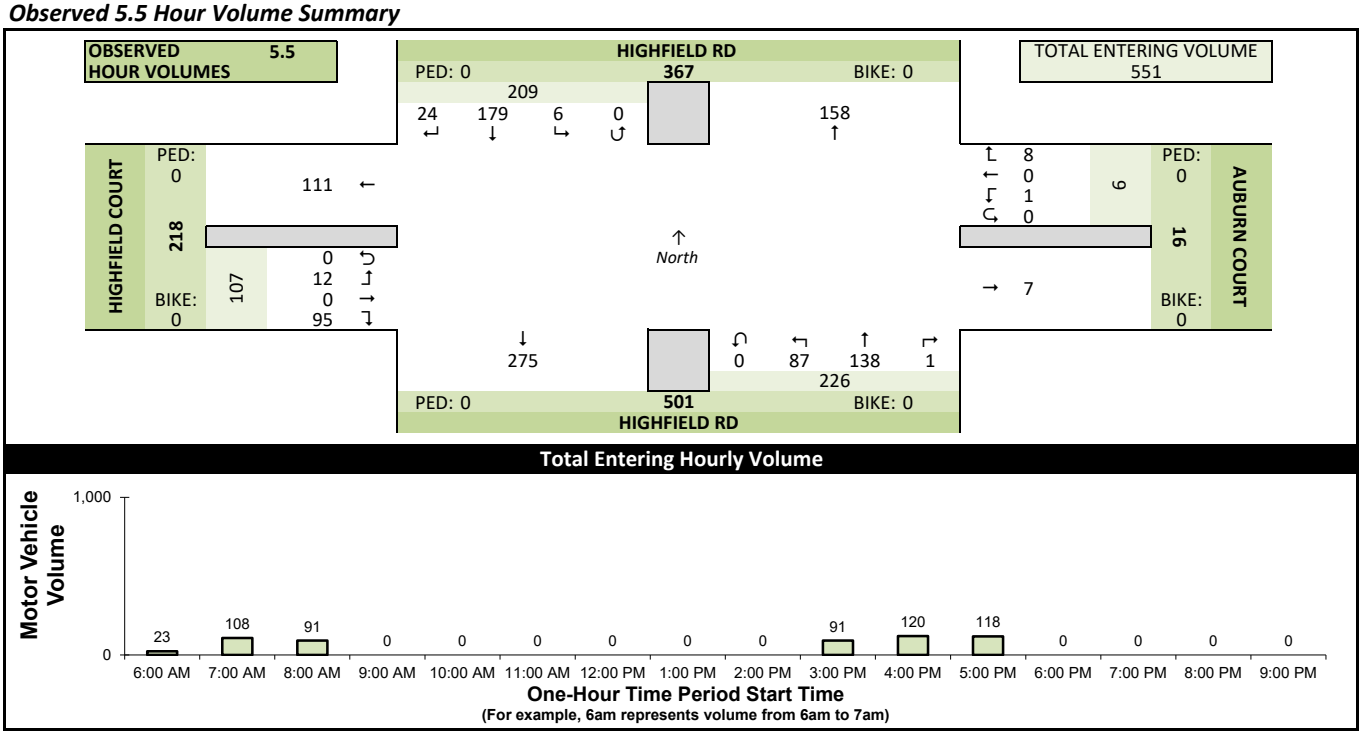
Site Information

Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	HIGHFIELD RD		
East Leg	AUBURN COURT		
South Leg	HIGHFIELD RD		
West Leg	HIGHFIELD COURT		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

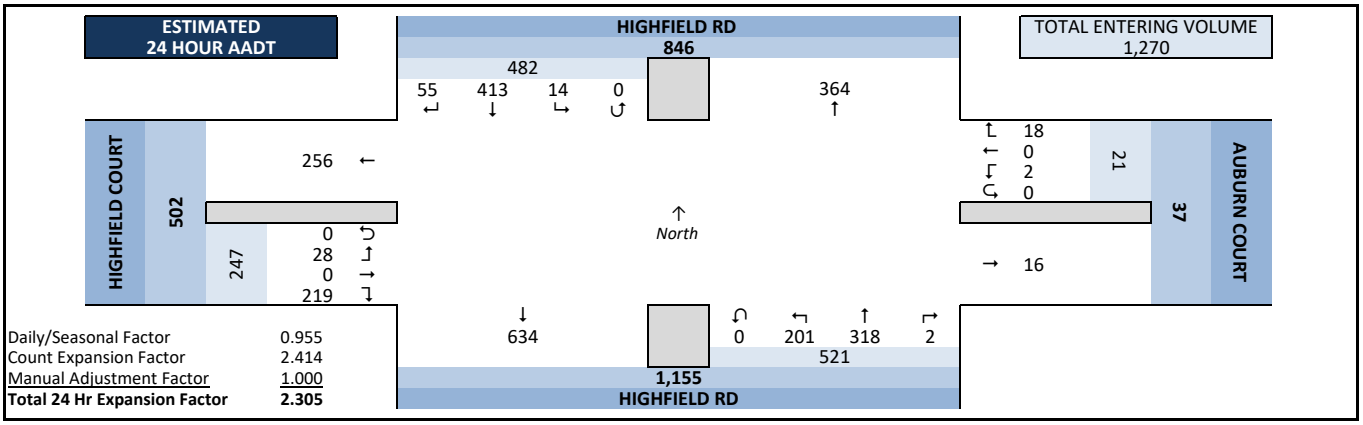
Count Information

Hrs Counted:	06:30 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Tuesday, April 11, 2023			Weather	
AM Peak Period	Wednesday, April 12, 2023			Clear & Dry	
Midday Peak Period	Wednesday, April 12, 2023			Clear & Dry	
PM Peak Period	Tuesday, April 11, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:45-8:45am	MD		PM	4:45-5:45pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	0.955	Count Expansion Factor	2.414		
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers: AM Peak Period	LuAnn Gaertner				
Observers: Midday Peak Period	None				
Observers: PM Peak Period	Jane Fait				
Comments	2021 DOT Daily & Seasonal Factors				

Observed 5.5 Hour Volume Summary



Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

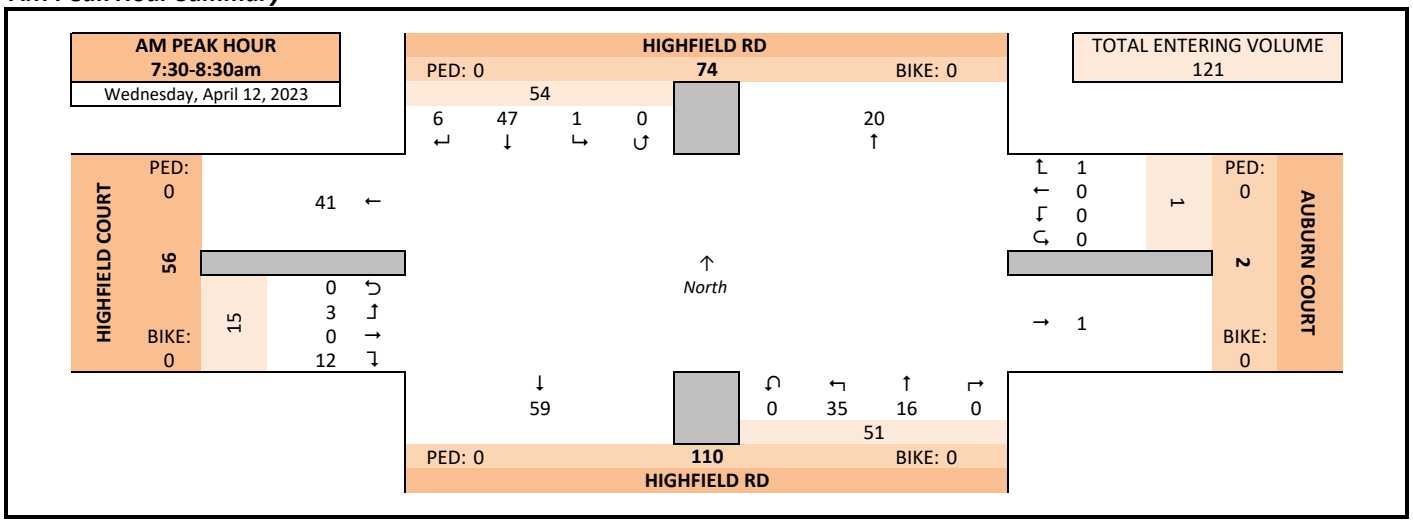
Peak Hour Volume Graphical Summary

HIGHFIELD RD & HIGHFIELD COURT

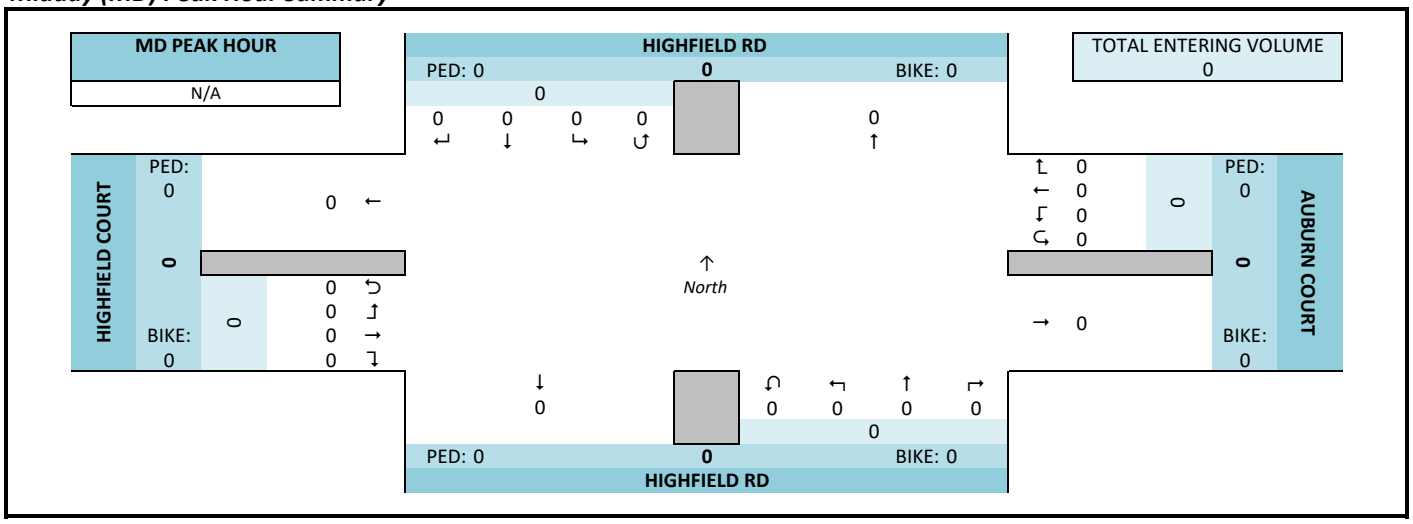
All Motor Vehicles



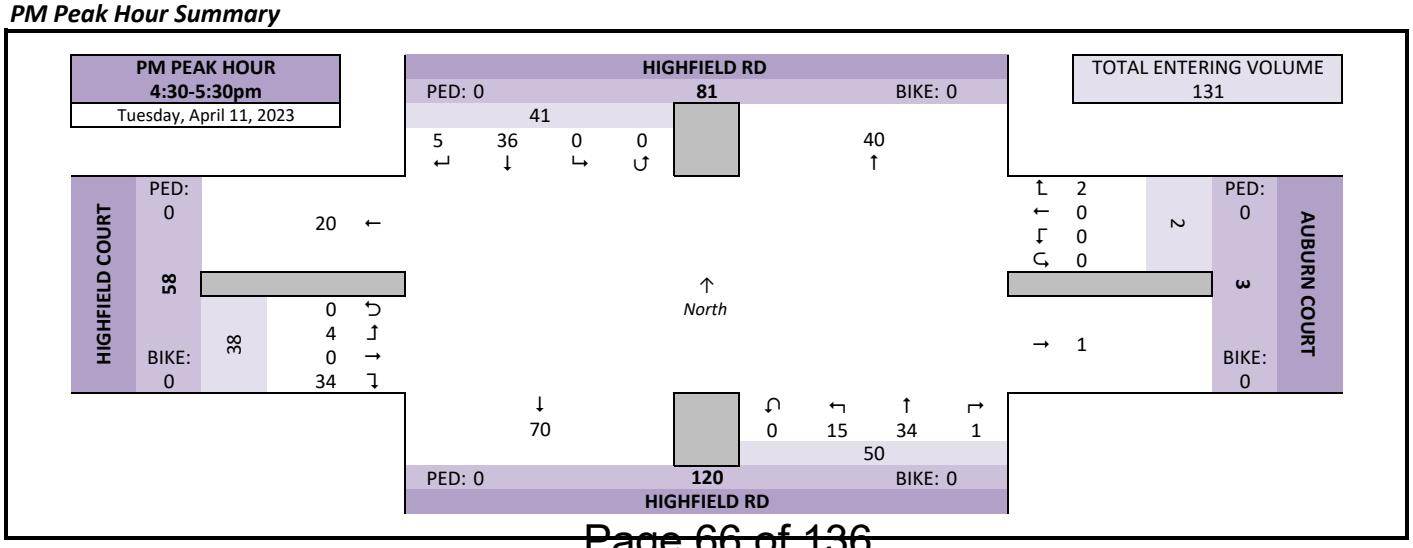
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

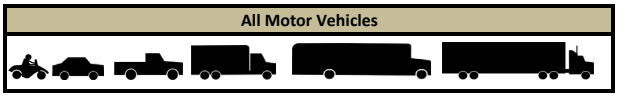


Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

HIGHFIELD RD & HIGHFIELD COURT



Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, April 12, 2023		From North					From East					From South					From West					
	AM Peak Hour	HIGHFIELD RD					AUBURN COURT					HIGHFIELD RD					HIGHFIELD COURT					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:30 AM	1	5	1	0	7	0	0	0	0	0	0	5	9	0	14	4	0	0	0	4	25
	7:45 AM	2	18	0	0	20	0	0	0	0	0	0	3	8	0	11	3	0	1	0	4	35
	8:00 AM	1	11	0	0	12	1	0	0	0	1	0	3	9	0	12	2	0	1	0	3	28
	8:15 AM	2	13	0	0	15	0	0	0	0	0	0	5	9	0	14	3	0	1	0	4	33
	Peak Hour Volume	6	47	1	0	54	1	0	0	0	1	0	16	35	0	51	12	0	3	0	15	121
	Rounded Hourly Volume	5	45	0	0	50	0	0	0	0	0	0	15	35	0	50	10	0	5	0	15	115
	% Single Unit Trucks	16.7	2.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	12.5	2.9	0.0	5.9	8.3	0.0	33.3	0.0	13.3	5.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	16.7	2.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	12.5	2.9	0.0	5.9	8.3	0.0	33.3	0.0	13.3	5.8
	Peak Hour Factor (PHF)	0.75	0.65	0.25	0.00	0.67	0.25	0.00	0.00	0.00	0.25	0.00	0.80	0.97	0.00	0.91	0.75	0.00	0.75	0.00	0.94	0.86

N/A		From North					From East					From South					From West					
	MD Peak Hour	HIGHFIELD RD					AUBURN COURT					HIGHFIELD RD					HIGHFIELD COURT					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tuesday, April 11, 2023		From North					From East					From South					From West					
	PM Peak Hour	HIGHFIELD RD					AUBURN COURT					HIGHFIELD RD					HIGHFIELD COURT					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	1	12	0	0	13	2	0	0	0	2	1	8	2	0	11	5	0	1	0	6	32
	4:45 PM	1	11	0	0	12	0	0	0	0	0	0	7	7	0	14	10	0	1	0	11	37
	5:00 PM	2	10	0	0	12	0	0	0	0	0	0	9	3	0	12	12	0	2	0	14	38
	5:15 PM	1	3	0	0	4	0	0	0	0	0	0	10	3	0	13	7	0	0	0	7	24
	Peak Hour Volume	5	36	0	0	41	2	0	0	0	2	1	34	15	0	50	34	0	4	0	38	131
	Rounded Hourly Volume	5	35	0	0	40	0	0	0	0	0	0	35	15	0	50	35	0	5	0	40	130
	% Single Unit Trucks	0.0	8.3	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	3.1
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	8.3	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	3.1
	Peak Hour Factor (PHF)	0.62	0.75	0.00	0.00	0.79	0.25	0.00	0.00	0.00	0.25	0.25	0.85	0.54	0.00	0.89	0.71	0.00	0.50	0.00	0.68	0.86

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		HIGHFIELD RD			AUBURN COURT			HIGHFIELD RD			HIGHFIELD COURT			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	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
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

HIGHFIELD RD & HIGHFIELD COURT

All Motor Vehicles



15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) HIGHFIELD RD					From East (←) AUBURN COURT					From South (↑) HIGHFIELD RD					From West (→) HIGHFIELD COURT					15-Min	Hourly	
	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	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	1	4	0	0	5	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	9	71	0.66
	6:45 AM	2	6	0	0	8	0	0	0	0	0	0	1	2	0	3	3	0	0	0	3	14	87	0.81
	7:00 AM	1	16	0	0	17	1	0	0	0	1	0	4	4	0	8	1	0	0	0	1	27	108	0.77
	7:15 AM	0	15	0	0	15	0	0	0	0	0	0	3	2	0	5	1	0	0	0	1	21	109	0.78
	7:30 AM	1	5	1	0	7	0	0	0	0	0	0	5	9	0	14	4	0	0	0	4	25	121	0.86
	7:45 AM	2	18	0	0	20	0	0	0	0	0	0	3	8	0	11	3	0	1	0	4	35	125	0.89
	8:00 AM	1	11	0	0	12	1	0	0	0	1	0	3	9	0	12	2	0	1	0	3	28	91	0.69
	8:15 AM	2	13	0	0	15	0	0	0	0	0	0	5	9	0	14	3	0	1	0	4	33		
	8:30 AM	1	13	0	0	14	0	0	0	0	0	0	5	6	0	11	4	0	0	0	4	29		
	8:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	2	12	0	0	14	2	0	1	0	3	0	5	3	0	8	2	0	1	0	3	28	91	0.81
	3:15 PM	1	2	0	0	3	0	0	0	0	0	0	11	1	0	12	3	0	0	0	3	18	92	0.79
	3:30 PM	0	4	2	0	6	0	0	0	0	0	0	10	3	0	13	1	0	0	0	1	20	96	0.83
	3:45 PM	1	6	1	0	8	0	0	0	0	0	0	7	5	0	12	5	0	0	0	5	25	108	0.84
	4:00 PM	2	7	0	0	9	0	0	0	0	0	0	11	4	0	15	4	0	1	0	5	29	120	0.81
	4:15 PM	1	4	0	0	5	0	0	0	0	0	0	8	4	0	12	5	0	0	0	5	22	129	0.85
	4:30 PM	1	12	0	0	13	2	0	0	0	2	1	8	2	0	11	5	0	1	0	6	32	131	0.86
	4:45 PM	1	11	0	0	12	0	0	0	0	0	0	7	7	0	14	10	0	1	0	11	37	133	0.88
	5:00 PM	2	10	0	0	12	0	0	0	0	0	0	9	3	0	12	12	0	2	0	14	38	118	0.78
	5:15 PM	1	3	0	0	4	0	0	0	0	0	0	10	3	0	13	7	0	0	0	7	24		
	5:30 PM	0	3	1	0	4	0	0	0	0	0	0	15	0	0	15	14	0	1	0	15	34		
	5:45 PM	0	4	1	0	5	2	0	0	0	2	0	6	2	0	8	6	0	1	0	7	22		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0		
	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		24	179	6	0	209	8	0	1	0	9	1	138	87	0	226	95	0	12	0	107	551		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) HIGHFIELD RD					From East (←) AUBURN COURT					From South (↑) HIGHFIELD RD					From West (→) HIGHFIELD COURT					Total Hourly	
	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	Volume	PHF
AM	7:30 AM	6	47	1	0	54	1	0	0	0	1	0	16	35	0	51	12	0	3	0	15	121	0.86
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	5	36	0	0	41	2	0	0	0	2	1	34	25	0	60	34	0	4	0	38	131	0.86

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

HIGHFIELD RD & HIGHFIELD COURT



15-Minute Heavy Vehicle Data

	15-Minute	From North					From East					From South					From West						
	Time Period	HIGHFIELD RD					AUBURN COURT					HIGHFIELD RD					HIGHFIELD COURT					15-Min	Hourly
	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	Sum
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	4	5
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	7
	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	7
	7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	3	6
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
	8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	3:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	4:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
	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	5	0	0	9	1	0	0	0	1	0	7	1	0	8	1	0	4	0	5	23	

Peak Hour Heavy Vehicle Volume Summary

	Hourly	From North					From East					From South					From West					Total
	Time Period	HIGHFIELD RD					AUBURN COURT					HIGHFIELD RD					HIGHFIELD COURT					Hourly
	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	Volume
AM	7:30 AM	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	7
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4

Intersection Traffic Volume Report

Count Basics	Version 2022.11.2		Page 1 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Base Information, Observed (5.5) Hour and Estimated (24) Hour Volume Summaries

Major St: **STH 190 - Capitol Drive**
Minor St: **Highfield Road**
Intersection of: ***STH 190 - Capitol Drive & Highfield Road***

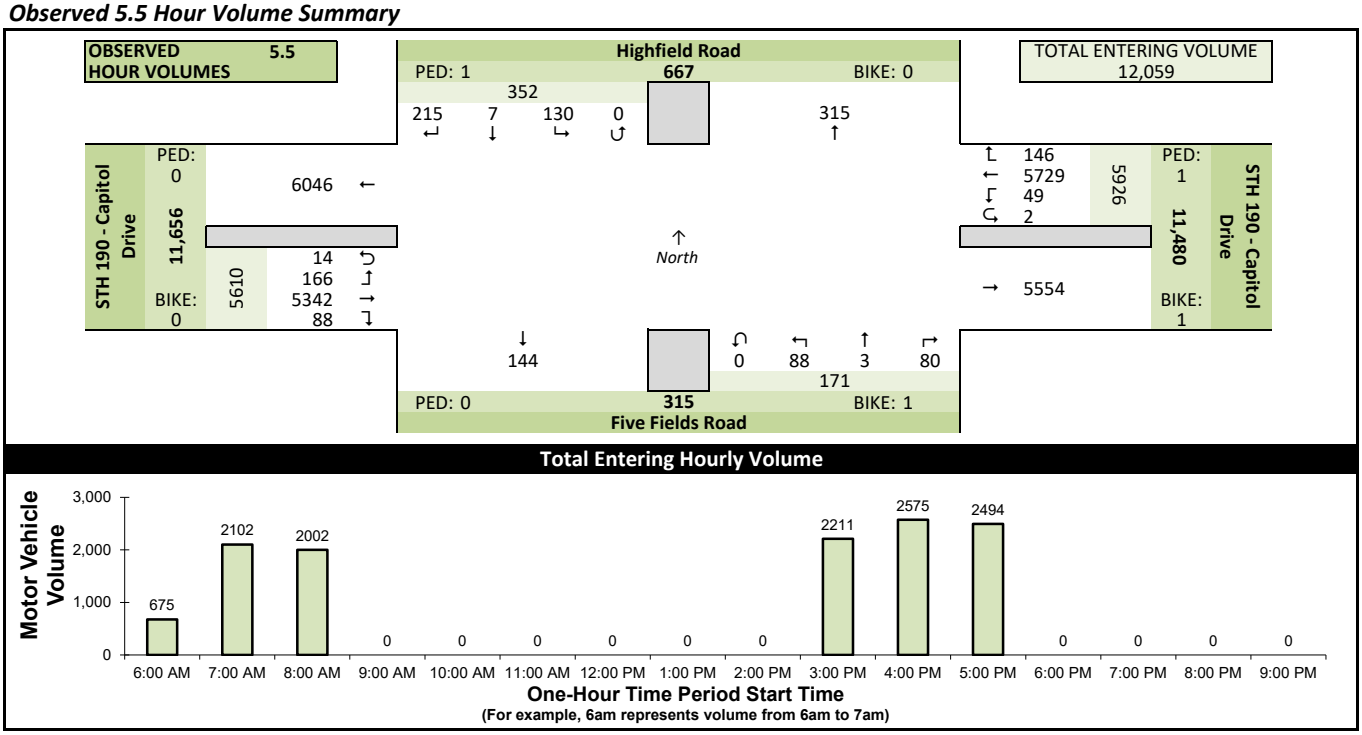
Site Information

Municipality	City of Pewaukee		
County	67 - Waukesha	WisDOT Region	SE
Traffic Control	Partial Stop Control		
Roadway Names		North Direction	↑
North Leg	Highfield Road		
East Leg	STH 190 - Capitol Drive		
South Leg	Five Fields Road		
West Leg	STH 190 - Capitol Drive		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

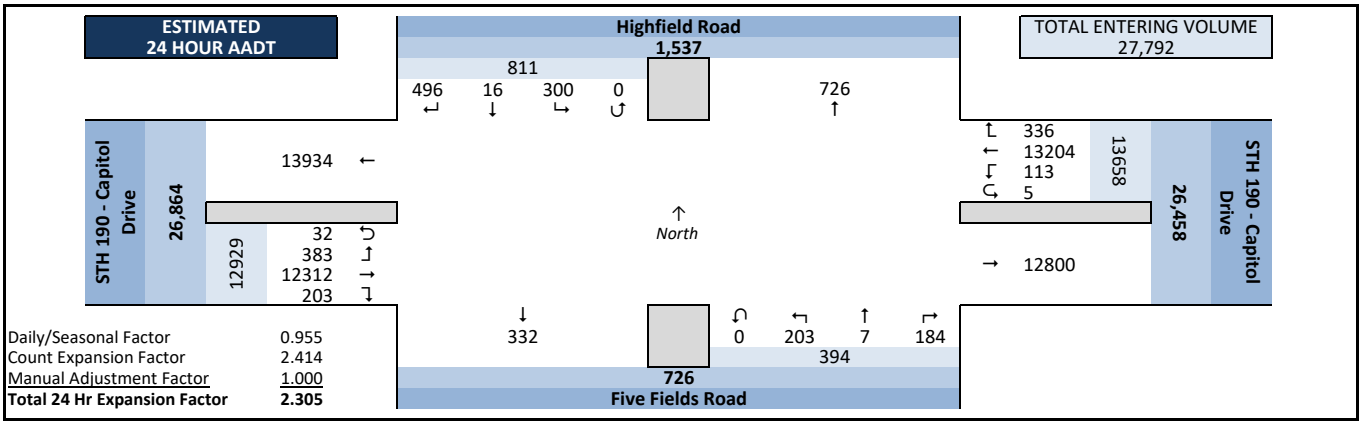
Count Information

Hrs Counted:	06:30 AM-09:00 AM and 03:00 PM-06:00 PM				
1st Day of Count	Tuesday, April 11, 2023			Weather	
AM Peak Period	Wednesday, April 12, 2023			Clear & Dry	
Midday Peak Period	Tuesday, April 11, 2023			Clear & Dry	
PM Peak Period	Tuesday, April 11, 2023			Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors				
Count Expansion Group	(2) Urban Arterials & Collectors				
Daily/Seasonal Adjustment Factor	0.955	Count Expansion Factor	2.414		
Company Name	TADI, Inc.			Manual Adj.	1.000
Observers: AM Peak Period	Amy Scheuerlein				
Observers: Midday Peak Period	None				
Observers: PM Peak Period	Amy Scheuerlein				
Comments	2021 DOT Daily & Seasonal Factors				

Observed 5.5 Hour Volume Summary



Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

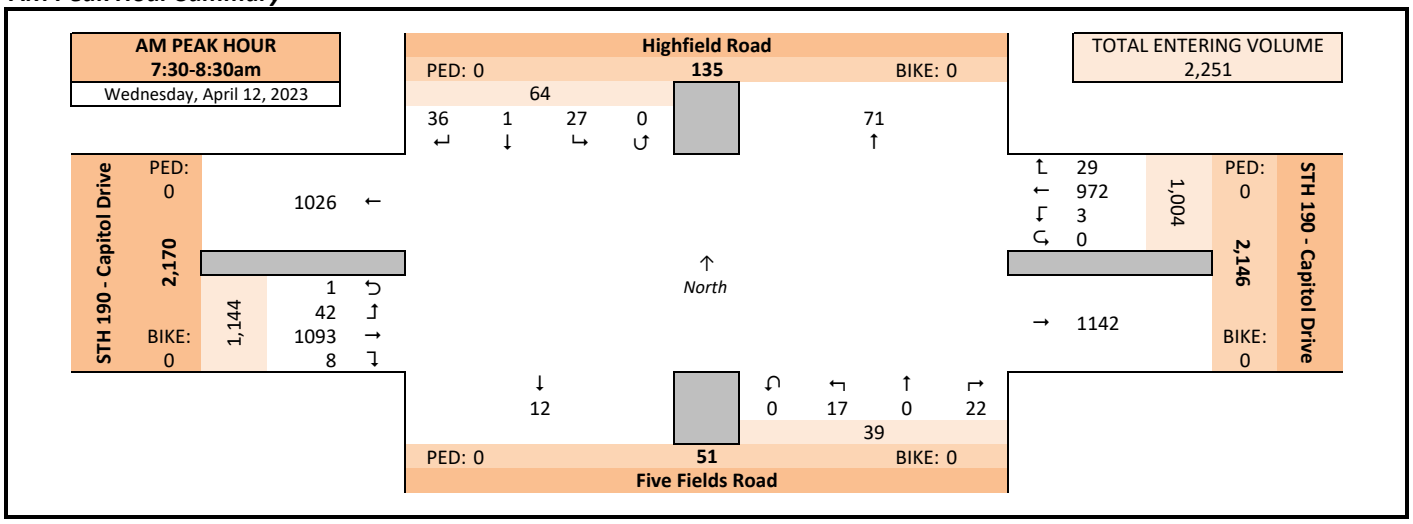
Peak Hour Volume Graphical Summary

STH 190 - Capitol Drive & Highfield Road

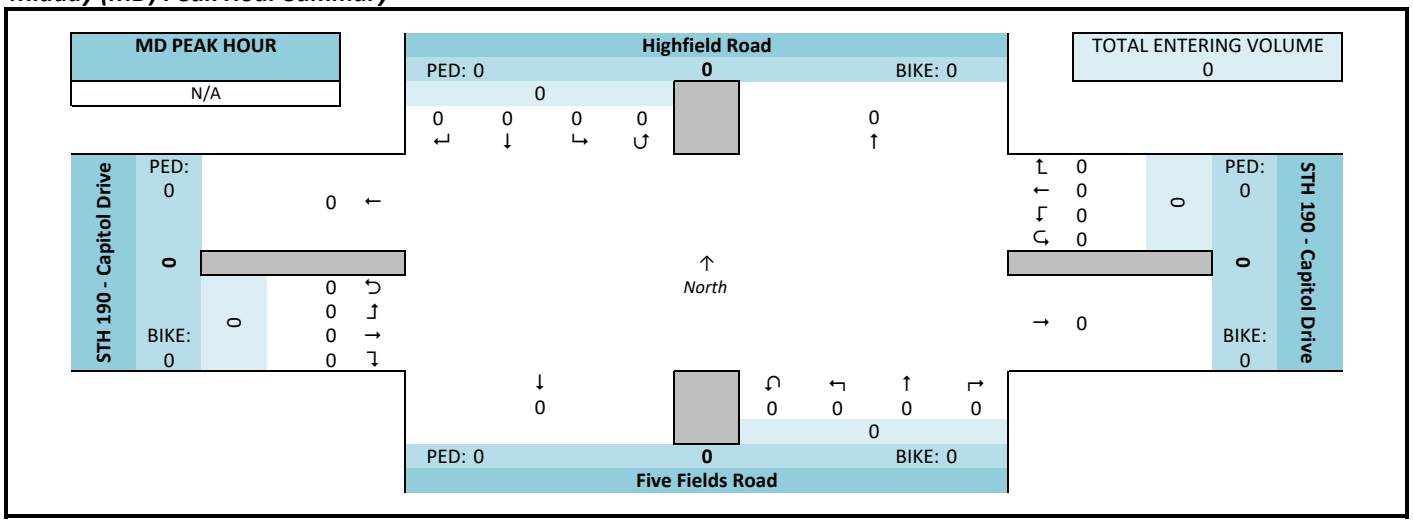
All Motor Vehicles



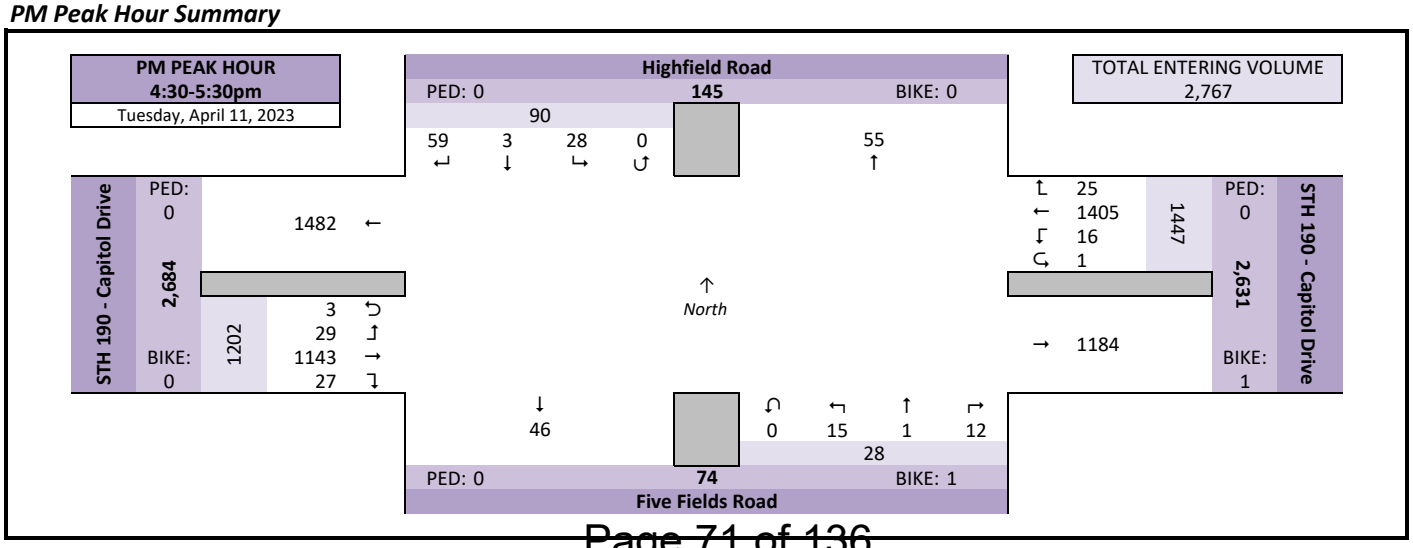
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary

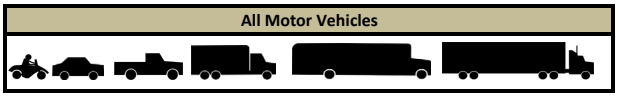


Intersection Traffic Volume Report

Count Basics			*Page 3 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

Peak Hour Volume Summary

STH 190 - Capitol Drive & Highfield Road



Peak Hour Volumes, Truck Percentages, and PHFs

Wednesday, April 12, 2023		From North					From East					From South					From West					
	AM Peak Hour	Highfield Road					STH 190 - Capitol Drive					Five Fields Road					STH 190 - Capitol Drive					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:30 AM	3	0	4	0	7	9	248	0	0	257	7	0	5	0	12	1	321	10	1	333	609
	7:45 AM	10	1	13	0	24	10	259	0	0	269	8	0	5	0	13	2	273	17	0	292	598
	8:00 AM	11	0	1	0	12	4	242	2	0	248	5	0	3	0	8	2	255	10	0	267	535
	8:15 AM	12	0	9	0	21	6	223	1	0	230	2	0	4	0	6	3	244	5	0	252	509
	Peak Hour Volume	36	1	27	0	64	29	972	3	0	1004	22	0	17	0	39	8	1093	42	1	1144	2251
	Rounded Hourly Volume	35	0	25	0	60	30	970	5	0	1005	20	0	15	0	35	10	1095	40	0	1145	2245
	% Single Unit Trucks	2.8	0.0	0.0	0.0	1.6	6.9	3.7	0.0	0.0	3.8	4.5	0.0	5.9	0.0	5.1	0.0	3.8	2.4	0.0	3.7	3.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.9
	% Trucks (Total)	2.8	0.0	0.0	0.0	1.6	6.9	4.5	0.0	0.0	4.6	4.5	0.0	5.9	0.0	5.1	0.0	4.8	2.4	0.0	4.7	4.6
	Peak Hour Factor (PHF)	0.75	0.25	0.52	0.00	0.67	0.72	0.94	0.37	0.00	0.93	0.69	0.00	0.85	0.00	0.75	0.67	0.85	0.62	0.25	0.86	0.92

N/A		From North					From East					From South					From West					
	MD Peak Hour	Highfield Road					STH 190 - Capitol Drive					Five Fields Road					STH 190 - Capitol Drive					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tuesday, April 11, 2023		From North					From East					From South					From West					
	PM Peak Hour	Highfield Road					STH 190 - Capitol Drive					Five Fields Road					STH 190 - Capitol Drive					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	10	1	6	0	17	6	326	5	0	337	5	0	7	0	12	7	286	8	2	303	669
	4:45 PM	19	2	12	0	33	6	344	4	0	354	3	1	1	0	5	4	269	8	1	282	674
	5:00 PM	16	0	4	0	20	6	365	3	0	374	4	0	4	0	8	10	302	8	0	320	722
	5:15 PM	14	0	6	0	20	7	370	4	1	382	0	0	3	0	3	6	286	5	0	297	702
	Peak Hour Volume	59	3	28	0	90	25	1405	16	1	1447	12	1	15	0	28	27	1143	29	3	1202	2767
	Rounded Hourly Volume	60	5	30	0	95	25	1405	15	0	1445	10	0	15	0	25	25	1145	30	5	1205	2770
	% Single Unit Trucks	3.4	0.0	3.6	0.0	3.3	0.0	1.3	6.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	0.0	1.7	1.5
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.3
	% Trucks (Total)	3.4	0.0	3.6	0.0	3.3	0.0	1.8	6.2	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.4	0.0	1.8	1.8
	Peak Hour Factor (PHF)	0.78	0.37	0.58	0.00	0.68	0.89	0.95	0.80	0.25	0.95	0.60	0.25	0.54	0.00	0.58	0.67	0.95	0.91	0.37	0.94	0.96

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Highfield Road			STH 190 - Capitol Drive			Five Fields Road			STH 190 - Capitol Drive			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	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
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	1
	Total	0	0	0	0	1	1	0	1	1	0	0	0	2

Intersection Traffic Volume Report

Count Basics		*Page 5 of 13*
Start Date: Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

STH 190 - Capitol Drive & Highfield Road

All Motor Vehicles



15-Minute Motor Vehicle Data

	15-Minute Time Period	From North (↓) Highfield Road					From East (←) STH 190 - Capitol Drive					From South (↑) Five Fields Road					From West (→) STH 190 - Capitol Drive					15-Min	Hourly	
	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	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	1	3	0	4	3	108	0	0	111	3	0	3	0	6	1	174	0	0	175	296	1570	0.82
	6:45 AM	3	1	6	0	10	4	170	1	0	175	3	0	1	0	4	2	186	2	0	190	379	1883	0.77
	7:00 AM	11	1	9	0	21	1	170	0	0	171	5	0	3	0	8	1	211	5	0	217	417	2102	0.86
	7:15 AM	4	0	3	0	7	5	192	0	0	197	4	0	4	0	8	1	255	10	0	266	478	2220	0.91
	7:30 AM	3	0	4	0	7	9	248	0	0	257	7	0	5	0	12	1	321	10	1	333	609	2251	0.92
	7:45 AM	10	1	13	0	24	10	259	0	0	269	8	0	5	0	13	2	273	17	0	292	598	2137	0.89
	8:00 AM	11	0	1	0	12	4	242	2	0	248	5	0	3	0	8	2	255	10	0	267	535	2002	0.94
	8:15 AM	12	0	9	0	21	6	223	1	0	230	2	0	4	0	6	3	244	5	0	252	509		
	8:30 AM	4	0	9	0	13	6	206	0	0	212	4	0	2	0	6	3	253	8	0	264	495		
	8:45 AM	11	0	6	0	17	5	195	1	0	201	3	0	9	0	12	2	219	11	1	233	463		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	13	0	10	0	23	2	243	4	0	249	1	0	5	0	6	6	217	9	0	232	510	2211	0.94
	3:15 PM	10	0	0	0	10	9	279	3	0	291	1	0	1	0	2	6	215	9	0	230	533	2302	0.96
	3:30 PM	7	0	3	0	10	9	314	0	0	323	3	0	1	0	4	7	231	10	5	253	590	2400	0.95
	3:45 PM	13	0	5	0	18	7	271	6	0	284	6	0	5	0	11	2	253	10	0	265	578	2479	0.93
	4:00 PM	11	0	6	0	17	10	295	4	0	309	2	1	8	0	11	8	251	5	0	264	601	2575	0.96
	4:15 PM	13	0	3	0	16	13	322	4	1	340	2	0	9	0	11	3	251	8	2	264	631	2696	0.93
	4:30 PM	10	1	6	0	17	6	326	5	0	337	5	0	7	0	12	7	286	8	2	303	669	2767	0.96
	4:45 PM	19	2	12	0	33	6	344	4	0	354	3	1	1	0	5	4	269	8	1	282	674	2684	0.93
	5:00 PM	16	0	4	0	20	6	365	3	0	374	4	0	4	0	8	10	302	8	0	320	722	2494	0.86
	5:15 PM	14	0	6	0	20	7	370	4	1	382	0	0	3	0	3	6	286	5	0	297	702		
	5:30 PM	11	0	10	0	21	9	308	1	0	318	7	0	3	0	10	8	221	7	1	237	586		
	5:45 PM	9	0	2	0	11	9	279	6	0	294	2	1	2	0	5	3	169	1	1	174	484		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0		
	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		215	7	130	0	352	146	5729	49	2	5926	80	3	88	0	171	88	5342	166	14	5610	12059		

Peak Hour All Vehicle Volume Summary

	Hourly Time Period	From North (↓) Highfield Road					From East (←) STH 190 - Capitol Drive					From South (↑) Five Fields Road					From West (→) STH 190 - Capitol Drive					Total Hourly	
	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	Volume	PHF
AM	7:30 AM	36	1	27	0	64	29	972	3	0	1004	22	0	17	0	39	8	1093	42	1	1144	2251	0.92
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	59	3	28	0	90	25	1405	16	1	1447	12	1	25	0	38	27	1143	29	3	1202	2767	0.96

Intersection Traffic Volume Report

Count Basics			*Page 9 of 13*
Start Date:	Tuesday, April 11, 2023	Weekday	Schools in Session
Total Number of Hours Counted: 5.5		Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

STH 190 - Capitol Drive & Highfield Road



15-Minute Heavy Vehicle Data

	15-Minute	From North					From East					From South					From West					15-Min	Hourly
	Time Period	Highfield Road					STH 190 - Capitol Drive					Five Fields Road					STH 190 - Capitol Drive					Totals	Sum
	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		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	10	0	0	10	20	66
	6:45 AM	0	0	1	0	1	1	4	0	0	5	0	0	0	0	0	0	9	0	0	9	15	66
	7:00 AM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	15	79
	7:15 AM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	5	0	0	5	16	94
	7:30 AM	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	13	0	0	13	20	103
	7:45 AM	0	0	0	0	0	0	11	0	0	11	1	0	0	0	1	0	16	0	0	16	28	112
	8:00 AM	1	0	0	0	1	1	14	0	0	15	0	0	1	0	1	0	12	1	0	13	30	110
	8:15 AM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	12	0	0	12	25	
	8:30 AM	0	0	0	0	0	1	10	0	0	11	1	0	0	0	1	0	17	0	0	17	29	
	8:45 AM	0	0	1	0	1	0	8	0	0	8	0	0	1	0	1	0	16	0	0	16	26	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	7	0	0	7	0	0	1	0	1	0	12	0	0	12	20	72
	3:15 PM	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	0	4	0	0	4	14	66
	3:30 PM	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	1	6	0	0	7	20	68
	3:45 PM	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	0	7	1	0	8	18	60
	4:00 PM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	14	59
	4:15 PM	0	0	0	0	0	0	9	0	0	9	0	0	1	0	1	0	6	0	0	6	16	61
	4:30 PM	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0	3	0	0	3	12	51
	4:45 PM	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	0	10	0	0	10	17	44
	5:00 PM	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	0	8	1	0	9	16	36
	5:15 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	6	
	5:30 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	5	
	5:45 PM	0	0	0	0	0	0	7	0	0	7	0	1	0	0	1	0	1	0	0	1	9	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	
	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		3	0	3	0	6	5	182	2	0	189	4	1	5	0	10	1	182	3	0	186	391	

Peak Hour Heavy Vehicle Volume Summary

	Hourly	From North					From East					From South					From West					Total
	Time Period	Highfield Road					STH 190 - Capitol Drive					Five Fields Road					STH 190 - Capitol Drive					Hourly
	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	Volume
AM	7:30 AM	1	0	0	0	1	2	44	0	0	46	1	0	1	0	2	0	53	1	0	54	103
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	2	0	1	0	3	0	25	1	0	26	0	0	0	0	0	0	21	1	0	22	51

APPENDIX B

LOS DEFINITIONS & SYNCHRO TRAFFIC ANALYSIS

Existing Traffic

Level of Service Definitions

LOS	Signalized Intersections Control Delay/Vehicle (sec/veh)	Unsignalized Intersections Avg. Control Delay (sec/veh)	Relative Delay
A	≤10	≤10	Short Delays
	Free-flow traffic operations at avearge travel speeds. Vehicles completely unimpeded in ability to maneuver. Minimal delay at signalized intersections.		
B	> 10 - 20	> 10 - 15	
	Reasonably unimpeded traffic operations at average travel speeds. Vehicle maneuverability slightly restricted. Low traffic delays.		
C	> 20 - 35	> 15 - 25	
	Stable traffic operations. Lane changes becoming more restricted. Travel speeds reduced to half of average free flow travel speeds. Longer intersection delays.		
D	> 35 - 55	> 25 - 35	Moderate Delays
	Small increases in traffic flow can cause increased delays. Delays likely attributable to increased traffic, reduced signal progression, and adverse timing.		
E	> 55 - 80	> 35 - 50	
	Significant delays. Travel speeds reduced to one-third of average free flow travel speed.		
F	> 80	> 50	Long Delays
	Extremely low speeds. Intersection congestion. Long delays. Extensive traffic queues at intersections.		

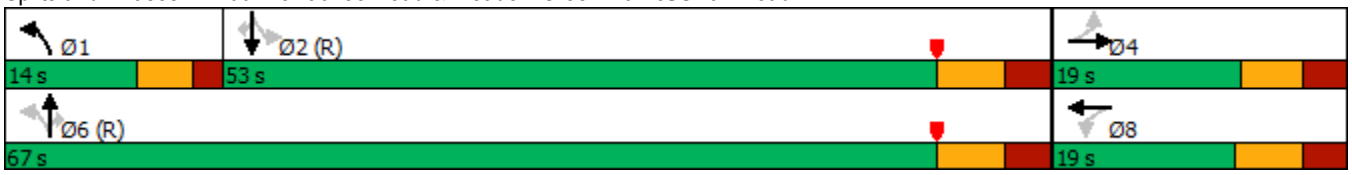
Source: Highway Capacity Manual, Transportation Research Board, Washington, D.C., 2010

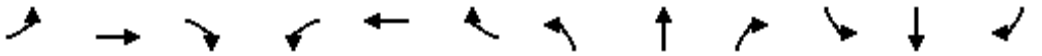
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	15	5	25	15	35	10	945	40	50	405	50
Future Volume (vph)	55	15	5	25	15	35	10	945	40	50	405	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	6%	6%	6%	11%	11%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	21	0	27	54	0	11	1038	27	55	445	34
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	19.0	19.0		19.0	19.0		14.0	67.0	67.0	53.0	53.0	53.0
Total Split (%)	22.1%	22.1%		22.1%	22.1%		16.3%	77.9%	77.9%	61.6%	61.6%	61.6%
Maximum Green (s)	12.1	12.1		11.7	11.7		8.5	59.7	59.7	45.7	45.7	45.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.44	0.12		0.20	0.33		0.01	0.38	0.02	0.15	0.18	0.03
Control Delay	46.1	35.3		38.1	40.9		3.2	4.6	3.7	8.0	5.5	6.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	35.3		38.1	40.9		3.2	4.6	3.7	8.0	5.5	6.2
90th %ile Green (s)	12.1	12.1		11.7	11.7		8.0	59.7	59.7	46.2	46.2	46.2
90th %ile Term Code	Max	Max		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	9.8	9.8		9.4	9.4		0.0	62.0	62.0	62.0	62.0	62.0
70th %ile Term Code	Gap	Gap		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
50th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
30th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0		0.0	0.0		0.0	78.7	78.7	78.7	78.7	78.7
10th %ile Term Code	Skip	Skip		Skip	Skip		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	31	11		14	28		1	89	3	7	31	4
Queue Length 95th (ft)	67	31		37	61		5	142	11	38	90	21
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	175	234		176	211		747	2750	1185	366	2519	1086
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.09		0.15	0.26		0.01	0.38	0.02	0.15	0.18	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 86	
Actuated Cycle Length: 86	
Offset: 4 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	15	5	25	15	35	10	945	40	50	405	50
Future Volume (veh/h)	55	15	5	25	15	35	10	945	40	50	405	50
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	1752	1752	1752	1767	1767	1767	1880	1880	1811	1803	1803	1737
Adj Flow Rate, veh/h	60	16	5	27	16	38	11	1038	27	55	445	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	10	10	9	9	9	6	6	6	11	11	11
Cap, veh/h	169	128	40	200	46	110	667	2608	1121	400	2209	949
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.73	0.73	0.64	0.64	0.64
Sat Flow, veh/h	1264	1280	400	1314	465	1103	1790	3571	1535	511	3425	1472
Grp Volume(v), veh/h	60	0	21	27	0	54	11	1038	27	55	445	34
Grp Sat Flow(s),veh/h/ln	1264	0	1680	1314	0	1568	1790	1786	1535	511	1713	1472
Q Serve(g_s), s	4.0	0.0	1.0	1.6	0.0	2.8	0.2	9.5	0.4	3.9	4.6	0.7
Cycle Q Clear(g_c), s	6.8	0.0	1.0	2.6	0.0	2.8	0.2	9.5	0.4	6.1	4.6	0.7
Prop In Lane	1.00		0.24	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	0	168	200	0	157	667	2608	1121	400	2209	949
V/C Ratio(X)	0.35	0.00	0.13	0.13	0.00	0.34	0.02	0.40	0.02	0.14	0.20	0.04
Avail Cap(c_a), veh/h	221	0	236	247	0	213	805	2608	1121	400	2209	949
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	35.3	36.5	0.0	36.1	4.4	4.4	3.2	7.0	6.2	5.6
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.1	0.0	0.5	0.0	0.5	0.0	0.7	0.2	0.1
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	1.2	0.0	0.4	0.5	0.0	1.1	0.0	2.3	0.1	0.4	1.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	35.4	36.6	0.0	36.6	4.4	4.9	3.2	7.7	6.4	5.6
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		81			81			1076			534	
Approach Delay, s/veh		38.6			36.6			4.8			6.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.3	62.8		15.9		70.1		15.9				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	8.5	45.7		* 12		59.7		11.7				
Max Q Clear Time (g_c+I1), s	2.2	8.1		8.8		11.5		4.8				
Green Ext Time (p_c), s	0.0	7.0		0.0		8.7		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	5	20	35	5	5	20
Future Volume (vph)	5	20	35	5	5	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	17%	1%	1%	12%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	51	32	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

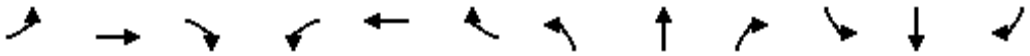
Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	20	35	5	5	20
Future Vol, veh/h	5	20	35	5	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	17	17	1	1	12	12
Mvmt Flow	6	26	45	6	6	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	32	0	115	19
Stage 1	-	-	-	-	19	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	-	-	4.11	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.209	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1587	-	858	1031
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1587	-	834	1031
Mov Cap-2 Maneuver	-	-	-	-	834	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1587	-
HCM Lane V/C Ratio	0.033	-	-	0.029	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	10	1	1	1	35	20	1	1	50	5
Future Volume (vph)	5	1	10	1	1	1	35	20	1	1	50	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	13%	13%	1%	1%	1%	6%	6%	6%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	3	0	0	65	0	0	65	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

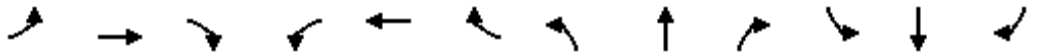
Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	1	10	1	1	1	35	20	1	1	50	5
Future Vol, veh/h	5	1	10	1	1	1	35	20	1	1	50	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	13	13	13	1	1	1	6	6	6	4	4	4
Mvmt Flow	6	1	12	1	1	1	41	23	1	1	58	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	170	169	61	176	172	24	64	0	0	24	0	0
Stage 1	63	63	-	106	106	-	-	-	-	-	-	-
Stage 2	107	106	-	70	66	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.11	6.51	6.21	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.509	4.009	3.309	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	770	704	974	789	723	1055	1513	-	-	1578	-	-
Stage 1	921	821	-	902	809	-	-	-	-	-	-	-
Stage 2	872	787	-	942	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	752	684	974	762	703	1055	1513	-	-	1578	-	-
Mov Cap-2 Maneuver	752	684	-	762	703	-	-	-	-	-	-	-
Stage 1	896	820	-	878	787	-	-	-	-	-	-	-
Stage 2	846	766	-	929	841	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	9.4	4.7	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1513	-	-	871	815	1578	-	-
HCM Lane V/C Ratio	0.027	-	-	0.021	0.004	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.2	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1095	10	5	970	30	15	1	20	25	1	35
Future Volume (vph)	40	1095	10	5	970	30	15	1	20	25	1	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	1190	11	5	1054	33	0	39	0	0	28	38
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	1095	10	5	970	30	15	1	20	25	1	35
Future Vol, veh/h	40	1095	10	5	970	30	15	1	20	25	1	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	2	2	2
Mvmt Flow	43	1190	11	5	1054	33	16	1	22	27	1	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1087	0	0	1201	0	0	1814	2373	595	1746	2351	527
Stage 1	-	-	-	-	-	-	1276	1276	-	1064	1064	-
Stage 2	-	-	-	-	-	-	538	1097	-	682	1287	-
Critical Hdwy	4.2	-	-	4.2	-	-	7.6	6.6	7	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Follow-up Hdwy	2.25	-	-	2.25	-	-	3.55	4.05	3.35	3.52	4.02	3.32
Pot Cap-1 Maneuver	620	-	-	560	-	-	47	33	440	55	35	496
Stage 1	-	-	-	-	-	-	172	230	-	238	298	-
Stage 2	-	-	-	-	-	-	487	281	-	406	233	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	620	-	-	560	-	-	41	30	440	49	32	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	151	-	182	164	-
Stage 1	-	-	-	-	-	-	160	214	-	222	295	-
Stage 2	-	-	-	-	-	-	444	278	-	357	217	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	23.9	19.5
HCM LOS			C	C

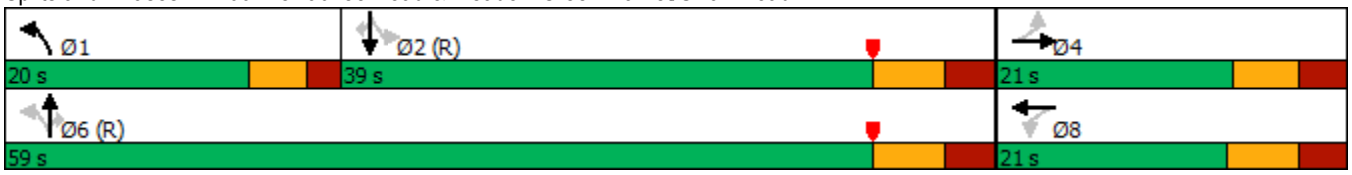
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	229	620	-	-	560	-	-	181	496
HCM Lane V/C Ratio	0.171	0.07	-	-	0.01	-	-	0.156	0.077
HCM Control Delay (s)	23.9	11.2	-	-	11.5	-	-	28.5	12.9
HCM Lane LOS	C	B	-	-	B	-	-	D	B
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	0.5	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	45	110	85	20	5	120	1230	100	5	775	85
Future Volume (vph)	105	45	110	85	20	5	120	1230	100	5	775	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	1%	1%	1%	4%	4%	4%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	162	0	89	26	0	125	1281	65	5	807	55
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	21.0	21.0		21.0	21.0		20.0	59.0	59.0	39.0	39.0	39.0
Total Split (%)	26.3%	26.3%		26.3%	26.3%		25.0%	73.8%	73.8%	48.8%	48.8%	48.8%
Maximum Green (s)	14.1	14.1		13.7	13.7		14.5	51.7	51.7	31.7	31.7	31.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.55	0.68		0.54	0.11		0.25	0.51	0.06	0.02	0.41	0.06
Control Delay	42.2	46.7		44.2	29.9		5.4	7.4	5.0	11.4	12.7	11.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	46.7		44.2	29.9		5.4	7.4	5.0	11.4	12.7	11.1
90th %ile Green (s)	14.1	14.1		13.7	13.7		8.0	51.7	51.7	38.2	38.2	38.2
90th %ile Term Code	Max	Max		Max	Max		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	13.6	13.6		13.2	13.2		8.0	52.2	52.2	38.7	38.7	38.7
70th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	11.5	11.5		11.1	11.1		8.0	54.3	54.3	40.8	40.8	40.8
50th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	9.4	9.4		9.0	9.0		8.0	56.4	56.4	42.9	42.9	42.9
30th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	57.4	57.4	57.4	57.4	57.4
10th %ile Term Code	Hold	Hold		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	51	78		42	12		17	141	9	1	125	13
Queue Length 95th (ft)	98	135		85	32		36	207	24	7	182	33
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	245	296		204	303		617	2522	1087	225	1982	854
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.55		0.44	0.09		0.20	0.51	0.06	0.02	0.41	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	45	110	85	20	5	120	1230	100	5	775	85
Future Volume (veh/h)	105	45	110	85	20	5	120	1230	100	5	775	85
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	1841	1841	1841	1957	1957	1885	1926	1926	1856
Adj Flow Rate, veh/h	109	47	115	89	21	5	125	1281	65	5	807	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	312	83	203	189	246	59	491	2402	1032	282	1770	761
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.09	0.65	0.65	0.48	0.48	0.48
Sat Flow, veh/h	1396	485	1187	1205	1437	342	1863	3718	1598	418	3659	1572
Grp Volume(v), veh/h	109	0	162	89	0	26	125	1281	65	5	807	55
Grp Sat Flow(s),veh/h/ln	1396	0	1672	1205	0	1779	1863	1859	1598	418	1830	1572
Q Serve(g_s), s	5.7	0.0	7.1	5.9	0.0	1.0	2.3	14.9	1.2	0.5	11.7	1.5
Cycle Q Clear(g_c), s	6.7	0.0	7.1	13.0	0.0	1.0	2.3	14.9	1.2	2.4	11.7	1.5
Prop In Lane	1.00		0.71	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	0	286	189	0	305	491	2402	1032	282	1770	761
V/C Ratio(X)	0.35	0.00	0.57	0.47	0.00	0.09	0.25	0.53	0.06	0.02	0.46	0.07
Avail Cap(c_a), veh/h	319	0	295	189	0	305	654	2402	1032	282	1770	761
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	30.4	36.4	0.0	27.9	8.2	7.6	5.2	11.8	13.7	11.0
Incr Delay (d2), s/veh	0.2	0.0	1.4	0.7	0.0	0.0	0.1	0.9	0.1	0.1	0.8	0.2
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	1.9	0.0	2.9	1.7	0.0	0.4	0.7	4.5	0.3	0.1	4.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	31.8	37.0	0.0	27.9	8.3	8.5	5.3	11.9	14.5	11.2
LnGrp LOS	C	A	C	D	A	C	A	A	A	B	B	B
Approach Vol, veh/h		271			115			1471			867	
Approach Delay, s/veh		31.5			35.0			8.3			14.3	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.0	46.0		21.0		59.0		21.0				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	14.5	31.7		* 14		51.7		13.7				
Max Q Clear Time (g_c+I1), s	4.3	13.7		9.1		16.9		15.0				
Green Ext Time (p_c), s	0.1	8.4		0.3		11.3		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	10	10	30	5	10	30
Future Volume (vph)	10	10	30	5	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	40	45	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

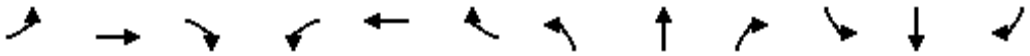
Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	10	30	5	10	30
Future Vol, veh/h	10	10	30	5	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	9	9	2	2
Mvmt Flow	11	11	34	6	11	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	91	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	-	-	4.19	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1549	-	909	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	949	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1549	-	889	1062
Mov Cap-2 Maneuver	-	-	-	-	889	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.3	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1013	-	-	1549	-
HCM Lane V/C Ratio	0.045	-	-	0.022	-
HCM Control Delay (s)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	35	1	1	1	15	35	1	1	35	5
Future Volume (vph)	5	1	35	1	1	1	15	35	1	1	35	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	3	0	0	59	0	0	48	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

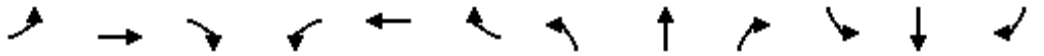
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	1	35	1	1	1	15	35	1	1	35	5
Future Vol, veh/h	5	1	35	1	1	1	15	35	1	1	35	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	7	7	7
Mvmt Flow	6	1	41	1	1	1	17	41	1	1	41	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	123	122	44	143	125	42	47	0	0	42	0	0
Stage 1	46	46	-	76	76	-	-	-	-	-	-	-
Stage 2	77	76	-	67	49	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.12	-	-	4.17	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.218	-	-	2.263	-	-
Pot Cap-1 Maneuver	854	770	1029	829	767	1032	1560	-	-	1535	-	-
Stage 1	970	859	-	936	834	-	-	-	-	-	-	-
Stage 2	934	834	-	946	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	845	761	1029	788	758	1032	1560	-	-	1535	-	-
Mov Cap-2 Maneuver	845	761	-	788	758	-	-	-	-	-	-	-
Stage 1	959	858	-	926	825	-	-	-	-	-	-	-
Stage 2	921	825	-	906	855	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.3	2.2	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	994	843	1535	-	-
HCM Lane V/C Ratio	0.011	-	-	0.048	0.004	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.8	9.3	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1145	25	15	1405	25	15	1	10	30	5	60
Future Volume (vph)	30	1145	25	15	1405	25	15	1	10	30	5	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	1193	26	16	1464	26	0	27	0	0	36	63
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	1145	25	15	1405	25	15	1	10	30	5	60
Future Vol, veh/h	30	1145	25	15	1405	25	15	1	10	30	5	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	3	3	3
Mvmt Flow	31	1193	26	16	1464	26	16	1	10	31	5	63

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1490	0	0	1219	0	0	2022	2777	597	2155	2777	732
Stage 1	-	-	-	-	-	-	1255	1255	-	1496	1496	-
Stage 2	-	-	-	-	-	-	767	1522	-	659	1281	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.53	4.03	3.33
Pot Cap-1 Maneuver	447	-	-	568	-	-	34	19	449	~ 27	18	361
Stage 1	-	-	-	-	-	-	183	243	-	127	183	-
Stage 2	-	-	-	-	-	-	363	181	-	417	233	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	447	-	-	568	-	-	25	17	449	~ 24	16	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	134	115	-	107	124	-
Stage 1	-	-	-	-	-	-	170	226	-	118	178	-
Stage 2	-	-	-	-	-	-	283	176	-	377	217	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	28.2	30.6
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	182	447	-	-	568	-	-	109	361
HCM Lane V/C Ratio	0.149	0.07	-	-	0.028	-	-	0.334	0.173
HCM Control Delay (s)	28.2	13.7	-	-	11.5	-	-	53.8	17
HCM Lane LOS	D	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0.1	-	-	1.3	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX C

SYNCHRO TRAFFIC ANALYSIS

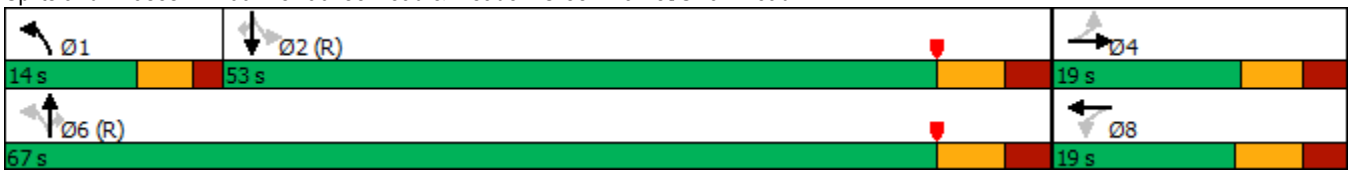
Build Traffic
Scenario A

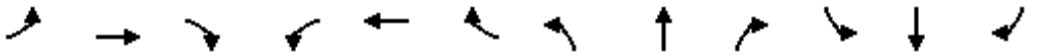
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	15	5	25	15	35	10	955	40	50	415	50
Future Volume (vph)	55	15	5	25	15	35	10	955	40	50	415	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	6%	6%	6%	11%	11%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	21	0	27	54	0	11	1049	27	55	456	34
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	19.0	19.0		19.0	19.0		14.0	67.0	67.0	53.0	53.0	53.0
Total Split (%)	22.1%	22.1%		22.1%	22.1%		16.3%	77.9%	77.9%	61.6%	61.6%	61.6%
Maximum Green (s)	12.1	12.1		11.7	11.7		8.5	59.7	59.7	45.7	45.7	45.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.44	0.12		0.20	0.33		0.01	0.38	0.02	0.15	0.18	0.03
Control Delay	46.1	35.3		38.1	40.9		3.2	4.7	3.7	8.0	5.5	6.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	35.3		38.1	40.9		3.2	4.7	3.7	8.0	5.5	6.2
90th %ile Green (s)	12.1	12.1		11.7	11.7		8.0	59.7	59.7	46.2	46.2	46.2
90th %ile Term Code	Max	Max		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	9.8	9.8		9.4	9.4		0.0	62.0	62.0	62.0	62.0	62.0
70th %ile Term Code	Gap	Gap		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
50th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
30th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0		0.0	0.0		0.0	78.7	78.7	78.7	78.7	78.7
10th %ile Term Code	Skip	Skip		Skip	Skip		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	31	11		14	28		1	90	3	7	32	4
Queue Length 95th (ft)	67	31		37	61		5	144	11	38	93	21
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	175	234		176	211		741	2750	1185	362	2519	1086
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.09		0.15	0.26		0.01	0.38	0.02	0.15	0.18	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 86	
Actuated Cycle Length: 86	
Offset: 4 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	15	5	25	15	35	10	955	40	50	415	50
Future Volume (veh/h)	55	15	5	25	15	35	10	955	40	50	415	50
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	1752	1752	1752	1767	1767	1767	1880	1880	1811	1803	1803	1737
Adj Flow Rate, veh/h	60	16	5	27	16	38	11	1049	27	55	456	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	10	10	9	9	9	6	6	6	11	11	11
Cap, veh/h	169	128	40	200	46	110	660	2608	1121	396	2209	949
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.73	0.73	0.64	0.64	0.64
Sat Flow, veh/h	1264	1280	400	1314	465	1103	1790	3571	1535	505	3425	1472
Grp Volume(v), veh/h	60	0	21	27	0	54	11	1049	27	55	456	34
Grp Sat Flow(s),veh/h/ln	1264	0	1680	1314	0	1568	1790	1786	1535	505	1713	1472
Q Serve(g_s), s	4.0	0.0	1.0	1.6	0.0	2.8	0.2	9.6	0.4	4.0	4.7	0.7
Cycle Q Clear(g_c), s	6.8	0.0	1.0	2.6	0.0	2.8	0.2	9.6	0.4	6.3	4.7	0.7
Prop In Lane	1.00		0.24	1.00		0.70	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	0	168	200	0	157	660	2608	1121	396	2209	949
V/C Ratio(X)	0.35	0.00	0.13	0.13	0.00	0.34	0.02	0.40	0.02	0.14	0.21	0.04
Avail Cap(c_a), veh/h	221	0	236	247	0	213	798	2608	1121	396	2209	949
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	35.3	36.5	0.0	36.1	4.4	4.4	3.2	7.0	6.3	5.6
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.1	0.0	0.5	0.0	0.5	0.0	0.7	0.2	0.1
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	1.2	0.0	0.4	0.5	0.0	1.1	0.0	2.3	0.1	0.4	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	35.4	36.6	0.0	36.6	4.4	4.9	3.2	7.8	6.5	5.6
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		81			81			1087			545	
Approach Delay, s/veh		38.6			36.6			4.8			6.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.3	62.8		15.9		70.1		15.9				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	8.5	45.7		* 12		59.7		11.7				
Max Q Clear Time (g_c+I1), s	2.2	8.3		8.8		11.6		4.8				
Green Ext Time (p_c), s	0.0	7.2		0.0		8.8		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		8.3
HCM 6th LOS		A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	5	20	35	5	5	20
Future Volume (vph)	5	20	35	5	5	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	17%	1%	1%	12%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	0	51	32	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

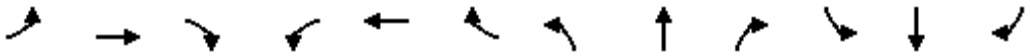
Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	20	35	5	5	20
Future Vol, veh/h	5	20	35	5	5	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	17	17	1	1	12	12
Mvmt Flow	6	26	45	6	6	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	32	0	115	19
Stage 1	-	-	-	-	19	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	-	-	4.11	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.209	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1587	-	858	1031
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1587	-	834	1031
Mov Cap-2 Maneuver	-	-	-	-	834	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1587	-
HCM Lane V/C Ratio	0.033	-	-	0.029	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	60	1	1	1	95	20	1	1	50	5
Future Volume (vph)	5	1	60	1	1	1	95	20	1	1	50	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	13%	13%	1%	1%	1%	6%	6%	6%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	3	0	0	134	0	0	65	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

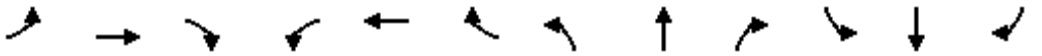
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	1	60	1	1	1	95	20	1	1	50	5
Future Vol, veh/h	5	1	60	1	1	1	95	20	1	1	50	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	13	13	13	1	1	1	6	6	6	4	4	4
Mvmt Flow	6	1	70	1	1	1	110	23	1	1	58	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	308	307	61	343	310	24	64	0	0	24	0	0
Stage 1	63	63	-	244	244	-	-	-	-	-	-	-
Stage 2	245	244	-	99	66	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.11	6.51	6.21	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.509	4.009	3.309	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	623	589	974	613	606	1055	1513	-	-	1578	-	-
Stage 1	921	821	-	762	706	-	-	-	-	-	-	-
Stage 2	735	684	-	910	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	586	545	974	536	561	1055	1513	-	-	1578	-	-
Mov Cap-2 Maneuver	586	545	-	536	561	-	-	-	-	-	-	-
Stage 1	853	820	-	706	654	-	-	-	-	-	-	-
Stage 2	679	633	-	843	841	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10.5	6.2	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1513	-	-	917	653	1578	-	-
HCM Lane V/C Ratio	0.073	-	-	0.084	0.005	0.001	-	-
HCM Control Delay (s)	7.6	0	-	9.3	10.5	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	1095	10	5	970	45	15	1	20	35	1	75
Future Volume (vph)	85	1095	10	5	970	45	15	1	20	35	1	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	1190	11	5	1054	49	0	39	0	0	39	82
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	1095	10	5	970	45	15	1	20	35	1	75
Future Vol, veh/h	85	1095	10	5	970	45	15	1	20	35	1	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	2	2	2
Mvmt Flow	92	1190	11	5	1054	49	16	1	22	38	1	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1103	0	0	1201	0	0	1912	2487	595	1844	2449	527
Stage 1	-	-	-	-	-	-	1374	1374	-	1064	1064	-
Stage 2	-	-	-	-	-	-	538	1113	-	780	1385	-
Critical Hdwy	4.2	-	-	4.2	-	-	7.6	6.6	7	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Follow-up Hdwy	2.25	-	-	2.25	-	-	3.55	4.05	3.35	3.52	4.02	3.32
Pot Cap-1 Maneuver	611	-	-	560	-	-	40	28	440	46	31	496
Stage 1	-	-	-	-	-	-	149	206	-	238	298	-
Stage 2	-	-	-	-	-	-	487	276	-	354	209	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	611	-	-	560	-	-	29	24	440	~ 38	26	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	120	-	158	141	-
Stage 1	-	-	-	-	-	-	127	175	-	202	295	-
Stage 2	-	-	-	-	-	-	402	274	-	284	177	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.1	28.3	20.7
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	193	611	-	-	560	-	-	157	496
HCM Lane V/C Ratio	0.203	0.151	-	-	0.01	-	-	0.249	0.164
HCM Control Delay (s)	28.3	11.9	-	-	11.5	-	-	35.4	13.7
HCM Lane LOS	D	B	-	-	B	-	-	E	B
HCM 95th %tile Q(veh)	0.7	0.5	-	-	0	-	-	0.9	0.6

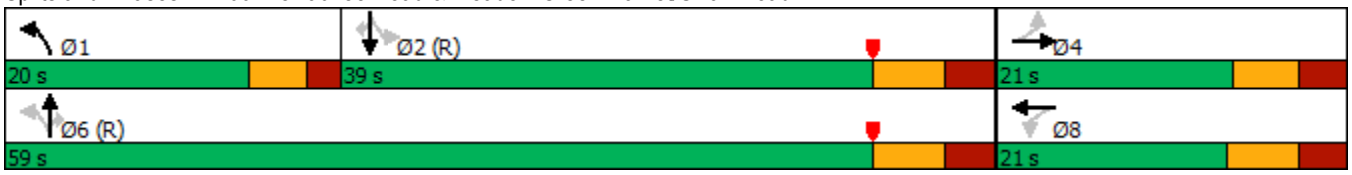
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	45	110	85	20	5	120	1240	100	5	785	85
Future Volume (vph)	105	45	110	85	20	5	120	1240	100	5	785	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	1%	1%	1%	4%	4%	4%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	162	0	89	26	0	125	1292	65	5	818	55
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	21.0	21.0		21.0	21.0		20.0	59.0	59.0	39.0	39.0	39.0
Total Split (%)	26.3%	26.3%		26.3%	26.3%		25.0%	73.8%	73.8%	48.8%	48.8%	48.8%
Maximum Green (s)	14.1	14.1		13.7	13.7		14.5	51.7	51.7	31.7	31.7	31.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.55	0.68		0.54	0.11		0.25	0.51	0.06	0.02	0.41	0.06
Control Delay	42.2	46.7		44.2	29.9		5.5	7.5	5.0	11.4	12.7	11.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	46.7		44.2	29.9		5.5	7.5	5.0	11.4	12.7	11.1
90th %ile Green (s)	14.1	14.1		13.7	13.7		8.0	51.7	51.7	38.2	38.2	38.2
90th %ile Term Code	Max	Max		Max	Max		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	13.6	13.6		13.2	13.2		8.0	52.2	52.2	38.7	38.7	38.7
70th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	11.5	11.5		11.1	11.1		8.0	54.3	54.3	40.8	40.8	40.8
50th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	9.4	9.4		9.0	9.0		8.0	56.4	56.4	42.9	42.9	42.9
30th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	57.4	57.4	57.4	57.4	57.4
10th %ile Term Code	Hold	Hold		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	51	78		42	12		17	142	9	1	127	13
Queue Length 95th (ft)	98	135		85	32		36	210	24	7	185	33
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	245	296		204	303		613	2522	1087	223	1982	854
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.55		0.44	0.09		0.20	0.51	0.06	0.02	0.41	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	45	110	85	20	5	120	1240	100	5	785	85
Future Volume (veh/h)	105	45	110	85	20	5	120	1240	100	5	785	85
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	1841	1841	1841	1957	1957	1885	1926	1926	1856
Adj Flow Rate, veh/h	109	47	115	89	21	5	125	1292	65	5	818	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	312	83	203	189	246	59	487	2402	1032	279	1770	761
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.09	0.65	0.65	0.48	0.48	0.48
Sat Flow, veh/h	1396	485	1187	1205	1437	342	1863	3718	1598	413	3659	1572
Grp Volume(v), veh/h	109	0	162	89	0	26	125	1292	65	5	818	55
Grp Sat Flow(s),veh/h/ln	1396	0	1672	1205	0	1779	1863	1859	1598	413	1830	1572
Q Serve(g_s), s	5.7	0.0	7.1	5.9	0.0	1.0	2.3	15.1	1.2	0.5	11.9	1.5
Cycle Q Clear(g_c), s	6.7	0.0	7.1	13.0	0.0	1.0	2.3	15.1	1.2	2.6	11.9	1.5
Prop In Lane	1.00		0.71	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	312	0	286	189	0	305	487	2402	1032	279	1770	761
V/C Ratio(X)	0.35	0.00	0.57	0.47	0.00	0.09	0.26	0.54	0.06	0.02	0.46	0.07
Avail Cap(c_a), veh/h	319	0	295	189	0	305	650	2402	1032	279	1770	761
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	30.4	36.4	0.0	27.9	8.3	7.7	5.2	11.9	13.7	11.0
Incr Delay (d2), s/veh	0.2	0.0	1.4	0.7	0.0	0.0	0.1	0.9	0.1	0.1	0.9	0.2
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	1.9	0.0	2.9	1.7	0.0	0.4	0.7	4.5	0.3	0.1	4.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	31.8	37.0	0.0	27.9	8.4	8.5	5.3	12.0	14.6	11.2
LnGrp LOS	C	A	C	D	A	C	A	A	A	B	B	B
Approach Vol, veh/h		271			115			1482			878	
Approach Delay, s/veh		31.5			35.0			8.4			14.4	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.0	46.0		21.0		59.0		21.0				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	14.5	31.7		* 14		51.7		13.7				
Max Q Clear Time (g_c+I1), s	4.3	13.9		9.1		17.1		15.0				
Green Ext Time (p_c), s	0.1	8.4		0.3		11.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	10	10	30	5	10	30
Future Volume (vph)	10	10	30	5	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	40	45	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	10	30	5	10	30
Future Vol, veh/h	10	10	30	5	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	9	9	2	2
Mvmt Flow	11	11	34	6	11	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	22	0	91	17
Stage 1	-	-	-	-	17	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	-	-	4.19	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1549	-	909	1062
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	949	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1549	-	889	1062
Mov Cap-2 Maneuver	-	-	-	-	889	-
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.3	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1013	-	-	1549	-
HCM Lane V/C Ratio	0.045	-	-	0.022	-
HCM Control Delay (s)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	90	1	1	1	65	35	1	1	35	5
Future Volume (vph)	5	1	90	1	1	1	65	35	1	1	35	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	3	0	0	118	0	0	48	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

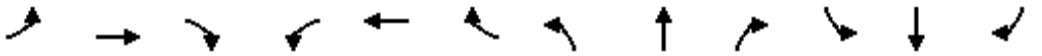
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	1	90	1	1	1	65	35	1	1	35	5
Future Vol, veh/h	5	1	90	1	1	1	65	35	1	1	35	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	7	7	7
Mvmt Flow	6	1	105	1	1	1	76	41	1	1	41	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	241	240	44	293	243	42	47	0	0	42	0	0
Stage 1	46	46	-	194	194	-	-	-	-	-	-	-
Stage 2	195	194	-	99	49	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.12	-	-	4.17	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.218	-	-	2.263	-	-
Pot Cap-1 Maneuver	715	663	1029	661	660	1032	1560	-	-	1535	-	-
Stage 1	970	859	-	810	742	-	-	-	-	-	-	-
Stage 2	809	742	-	910	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	686	629	1029	570	626	1032	1560	-	-	1535	-	-
Mov Cap-2 Maneuver	686	629	-	570	626	-	-	-	-	-	-	-
Stage 1	922	858	-	770	705	-	-	-	-	-	-	-
Stage 2	766	705	-	816	855	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	10.2	4.8	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1560	-	-	996	694	1535	-	-
HCM Lane V/C Ratio	0.048	-	-	0.112	0.005	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.1	10.2	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1145	25	15	1405	35	15	1	10	45	5	100
Future Volume (vph)	70	1145	25	15	1405	35	15	1	10	45	5	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	1193	26	16	1464	36	0	27	0	0	52	104
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	1145	25	15	1405	35	15	1	10	45	5	100
Future Vol, veh/h	70	1145	25	15	1405	35	15	1	10	45	5	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	3	3	3
Mvmt Flow	73	1193	26	16	1464	36	16	1	10	47	5	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1500	0	0	1219	0	0	2106	2871	597	2239	2861	732
Stage 1	-	-	-	-	-	-	1339	1339	-	1496	1496	-
Stage 2	-	-	-	-	-	-	767	1532	-	743	1365	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.53	4.03	3.33
Pot Cap-1 Maneuver	443	-	-	568	-	-	30	17	449	~ 23	16	361
Stage 1	-	-	-	-	-	-	163	222	-	127	183	-
Stage 2	-	-	-	-	-	-	363	179	-	371	212	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	443	-	-	568	-	-	18	14	449	~ 19	13	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	101	84	-	94	111	-
Stage 1	-	-	-	-	-	-	136	185	-	106	178	-
Stage 2	-	-	-	-	-	-	244	174	-	301	177	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	36.2	39.8
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	142	443	-	-	568	-	-	95	361
HCM Lane V/C Ratio	0.191	0.165	-	-	0.028	-	-	0.548	0.289
HCM Control Delay (s)	36.2	14.7	-	-	11.5	-	-	81.5	19
HCM Lane LOS	E	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	0.7	0.6	-	-	0.1	-	-	2.5	1.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX D

SYNCHRO TRAFFIC ANALYSIS

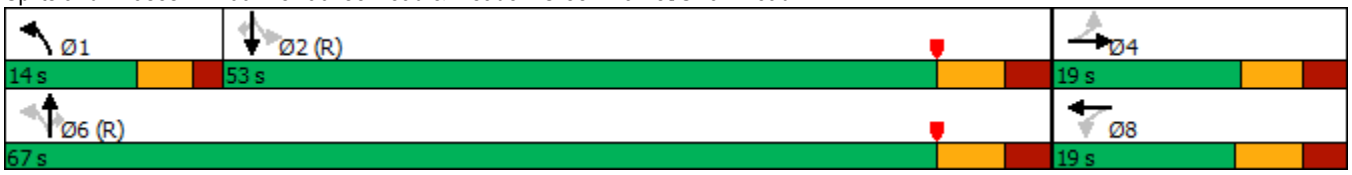
Build Traffic
Scenario B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	15	5	30	15	40	10	950	40	60	405	50
Future Volume (vph)	55	15	5	30	15	40	10	950	40	60	405	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	10%	10%	10%	9%	9%	9%	6%	6%	6%	11%	11%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	21	0	33	60	0	11	1044	27	66	445	34
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	19.0	19.0		19.0	19.0		14.0	67.0	67.0	53.0	53.0	53.0
Total Split (%)	22.1%	22.1%		22.1%	22.1%		16.3%	77.9%	77.9%	61.6%	61.6%	61.6%
Maximum Green (s)	12.1	12.1		11.7	11.7		8.5	59.7	59.7	45.7	45.7	45.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.45	0.12		0.24	0.37		0.01	0.38	0.02	0.18	0.18	0.03
Control Delay	46.3	35.3		39.3	42.1		3.2	4.7	3.7	8.4	5.5	6.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	35.3		39.3	42.1		3.2	4.7	3.7	8.4	5.5	6.2
90th %ile Green (s)	12.1	12.1		11.7	11.7		8.0	59.7	59.7	46.2	46.2	46.2
90th %ile Term Code	Max	Max		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	9.8	9.8		9.4	9.4		0.0	62.0	62.0	62.0	62.0	62.0
70th %ile Term Code	Gap	Gap		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
50th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	63.4	63.4	63.4	63.4	63.4
30th %ile Term Code	Hold	Hold		Min	Min		Skip	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0		0.0	0.0		0.0	78.7	78.7	78.7	78.7	78.7
10th %ile Term Code	Skip	Skip		Skip	Skip		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	31	11		17	31		1	90	3	9	31	4
Queue Length 95th (ft)	67	31		43	66		5	143	11	45	90	21
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	174	234		176	211		747	2750	1185	363	2519	1086
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.09		0.19	0.28		0.01	0.38	0.02	0.18	0.18	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 86	
Actuated Cycle Length: 86	
Offset: 4 (5%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	15	5	30	15	40	10	950	40	60	405	50
Future Volume (veh/h)	55	15	5	30	15	40	10	950	40	60	405	50
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	1752	1752	1752	1767	1767	1767	1880	1880	1811	1803	1803	1737
Adj Flow Rate, veh/h	60	16	5	33	16	44	11	1044	27	66	445	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	10	10	10	9	9	9	6	6	6	11	11	11
Cap, veh/h	170	134	42	206	43	119	662	2593	1114	395	2194	943
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.02	0.73	0.73	0.64	0.64	0.64
Sat Flow, veh/h	1258	1280	400	1314	416	1144	1790	3571	1535	508	3425	1472
Grp Volume(v), veh/h	60	0	21	33	0	60	11	1044	27	66	445	34
Grp Sat Flow(s),veh/h/ln	1258	0	1680	1314	0	1561	1790	1786	1535	508	1713	1472
Q Serve(g_s), s	4.0	0.0	1.0	2.0	0.0	3.1	0.2	9.7	0.4	5.0	4.6	0.7
Cycle Q Clear(g_c), s	7.1	0.0	1.0	3.0	0.0	3.1	0.2	9.7	0.4	7.4	4.6	0.7
Prop In Lane	1.00		0.24	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	0	175	206	0	163	662	2593	1114	395	2194	943
V/C Ratio(X)	0.35	0.00	0.12	0.16	0.00	0.37	0.02	0.40	0.02	0.17	0.20	0.04
Avail Cap(c_a), veh/h	216	0	236	248	0	212	801	2593	1114	395	2194	943
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	34.9	36.3	0.0	35.9	4.5	4.6	3.3	7.4	6.4	5.7
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.1	0.0	0.5	0.0	0.5	0.0	0.9	0.2	0.1
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	1.2	0.0	0.4	0.6	0.0	1.2	0.0	2.4	0.1	0.5	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	35.0	36.4	0.0	36.4	4.5	5.0	3.3	8.3	6.6	5.8
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		81			93			1082			545	
Approach Delay, s/veh		38.4			36.4			5.0			6.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.3	62.4		16.3		69.7		16.3				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	8.5	45.7		* 12		59.7		11.7				
Max Q Clear Time (g_c+I1), s	2.2	9.4		9.1		11.7		5.1				
Green Ext Time (p_c), s	0.0	7.2		0.0		8.7		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	5	30	35	5	15	20
Future Volume (vph)	5	30	35	5	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	17%	17%	1%	1%	12%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	0	51	45	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

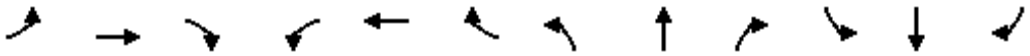
Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	30	35	5	15	20
Future Vol, veh/h	5	30	35	5	15	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	17	17	1	1	12	12
Mvmt Flow	6	39	45	6	19	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	45	0	122	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	96	-
Critical Hdwy	-	-	4.11	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.209	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1570	-	850	1022
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1570	-	825	1022
Mov Cap-2 Maneuver	-	-	-	-	825	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.4	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	927	-	-	1570	-
HCM Lane V/C Ratio	0.049	-	-	0.029	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	1	50	1	1	1	85	20	1	1	50	15
Future Volume (vph)	15	1	50	1	1	1	85	20	1	1	50	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	13%	13%	13%	1%	1%	1%	6%	6%	6%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	76	0	0	3	0	0	123	0	0	76	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

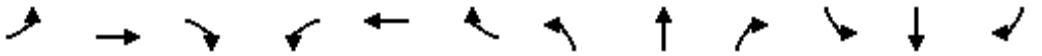
Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	15	1	50	1	1	1	85	20	1	1	50	15
Future Vol, veh/h	15	1	50	1	1	1	85	20	1	1	50	15
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	13	13	13	1	1	1	6	6	6	4	4	4
Mvmt Flow	17	1	58	1	1	1	99	23	1	1	58	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	292	291	67	320	299	24	75	0	0	24	0	0
Stage 1	69	69	-	222	222	-	-	-	-	-	-	-
Stage 2	223	222	-	98	77	-	-	-	-	-	-	-
Critical Hdwy	7.23	6.63	6.33	7.11	6.51	6.21	4.16	-	-	4.14	-	-
Critical Hdwy Stg 1	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.23	5.63	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.617	4.117	3.417	3.509	4.009	3.309	2.254	-	-	2.236	-	-
Pot Cap-1 Maneuver	639	601	967	635	615	1055	1499	-	-	1578	-	-
Stage 1	914	816	-	783	722	-	-	-	-	-	-	-
Stage 2	755	700	-	911	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	604	560	967	565	573	1055	1499	-	-	1578	-	-
Mov Cap-2 Maneuver	604	560	-	565	573	-	-	-	-	-	-	-
Stage 1	853	815	-	731	674	-	-	-	-	-	-	-
Stage 2	702	653	-	854	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.4	6.1	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	843	672	1578	-	-
HCM Lane V/C Ratio	0.066	-	-	0.091	0.005	0.001	-	-
HCM Control Delay (s)	7.6	0	-	9.7	10.4	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	1100	10	5	970	45	15	1	20	30	1	70
Future Volume (vph)	75	1100	10	5	970	45	15	1	20	30	1	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	1196	11	5	1054	49	0	39	0	0	34	76
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	1100	10	5	970	45	15	1	20	30	1	70
Future Vol, veh/h	75	1100	10	5	970	45	15	1	20	30	1	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	2	2	2
Mvmt Flow	82	1196	11	5	1054	49	16	1	22	33	1	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1103	0	0	1207	0	0	1898	2473	598	1827	2435	527
Stage 1	-	-	-	-	-	-	1360	1360	-	1064	1064	-
Stage 2	-	-	-	-	-	-	538	1113	-	763	1371	-
Critical Hdwy	4.2	-	-	4.2	-	-	7.6	6.6	7	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.6	-	6.54	5.54	-
Follow-up Hdwy	2.25	-	-	2.25	-	-	3.55	4.05	3.35	3.52	4.02	3.32
Pot Cap-1 Maneuver	611	-	-	557	-	-	41	28	438	48	31	496
Stage 1	-	-	-	-	-	-	152	209	-	238	298	-
Stage 2	-	-	-	-	-	-	487	276	-	363	212	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	611	-	-	557	-	-	31	24	438	40	27	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	118	125	-	163	145	-
Stage 1	-	-	-	-	-	-	132	181	-	206	295	-
Stage 2	-	-	-	-	-	-	407	274	-	297	184	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	27.5	19.6
HCM LOS			D	C

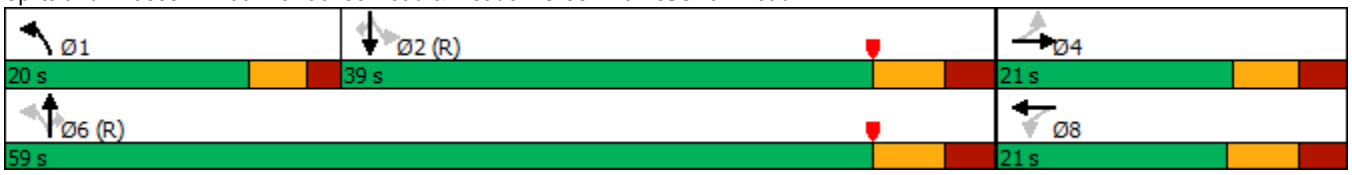
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	199	611	-	-	557	-	-	162	496
HCM Lane V/C Ratio	0.197	0.133	-	-	0.01	-	-	0.208	0.153
HCM Control Delay (s)	27.5	11.8	-	-	11.5	-	-	33	13.6
HCM Lane LOS	D	B	-	-	B	-	-	D	B
HCM 95th %tile Q(veh)	0.7	0.5	-	-	0	-	-	0.8	0.5

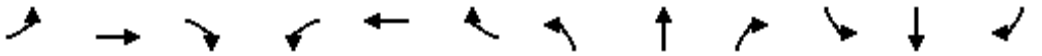
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	45	110	90	20	10	120	1235	100	15	775	85
Future Volume (vph)	105	45	110	90	20	10	120	1235	100	15	775	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1972	1972	1900	1972	1972	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	120		0	210		0	435		230	355		315
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	100			100			100			100		
Right Turn on Red			No			No			No			No
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		420			477			663			577	
Travel Time (s)		8.2			9.3			10.0			8.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	62%	100%	100%	62%
Heavy Vehicles (%)	1%	1%	1%	4%	4%	4%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	162	0	94	31	0	125	1286	65	16	807	55
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		1	6			2	
Permitted Phases	4			8			6		6	2		2
Detector Phase	4	4		8	8		1	6	6	2	2	2
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	12.0	12.0	12.0	12.0	12.0
Minimum Split (s)	14.9	14.9		15.3	15.3		13.5	19.3	19.3	19.3	19.3	19.3
Total Split (s)	21.0	21.0		21.0	21.0		20.0	59.0	59.0	39.0	39.0	39.0
Total Split (%)	26.3%	26.3%		26.3%	26.3%		25.0%	73.8%	73.8%	48.8%	48.8%	48.8%
Maximum Green (s)	14.1	14.1		13.7	13.7		14.5	51.7	51.7	31.7	31.7	31.7
Yellow Time (s)	3.9	3.9		4.3	4.3		3.5	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9		7.3	7.3		5.5	7.3	7.3	7.3	7.3	7.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	1.5		1.5	1.5		1.5	3.0	3.0	4.8	4.8	4.8
Minimum Gap (s)	1.5	1.5		1.5	1.5		1.5	2.0	2.0	3.8	3.8	3.8
Time Before Reduce (s)	30.0	30.0		30.0	30.0		25.0	19.0	19.0	29.0	29.0	29.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	13.0	13.0	8.0	8.0	8.0
Recall Mode	None	None		None	None		None	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.55	0.68		0.57	0.13		0.25	0.51	0.06	0.07	0.41	0.06
Control Delay	42.4	46.7		45.9	30.3		5.4	7.5	5.0	12.3	12.7	11.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	46.7		45.9	30.3		5.4	7.5	5.0	12.3	12.7	11.1
90th %ile Green (s)	14.1	14.1		13.7	13.7		8.0	51.7	51.7	38.2	38.2	38.2
90th %ile Term Code	Max	Max		Max	Max		Min	Coord	Coord	Coord	Coord	Coord
70th %ile Green (s)	13.6	13.6		13.2	13.2		8.0	52.2	52.2	38.7	38.7	38.7
70th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
50th %ile Green (s)	11.5	11.5		11.1	11.1		8.0	54.3	54.3	40.8	40.8	40.8
50th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
30th %ile Green (s)	9.4	9.4		9.0	9.0		8.0	56.4	56.4	42.9	42.9	42.9
30th %ile Term Code	Gap	Gap		Hold	Hold		Min	Coord	Coord	Coord	Coord	Coord
10th %ile Green (s)	8.4	8.4		8.0	8.0		0.0	57.4	57.4	57.4	57.4	57.4
10th %ile Term Code	Hold	Hold		Hold	Hold		Skip	Coord	Coord	Coord	Coord	Coord
Queue Length 50th (ft)	51	78		45	14		17	142	9	4	125	13
Queue Length 95th (ft)	98	135		89	37		36	208	24	16	182	33
Internal Link Dist (ft)		340			397			583			497	
Turn Bay Length (ft)	120			210			435		230	355		315
Base Capacity (vph)	244	296		204	297		617	2522	1087	224	1982	854
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.55		0.46	0.10		0.20	0.51	0.06	0.07	0.41	0.06

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 100: Pewaukee Road & Meadow Creek Market/Swan Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	45	110	90	20	10	120	1235	100	15	775	85
Future Volume (veh/h)	105	45	110	90	20	10	120	1235	100	15	775	85
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	1841	1841	1841	1957	1957	1885	1926	1926	1856
Adj Flow Rate, veh/h	109	47	115	94	21	10	125	1286	65	16	807	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	307	83	203	189	202	96	491	2402	1032	281	1770	761
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.09	0.65	0.65	0.48	0.48	0.48
Sat Flow, veh/h	1389	485	1187	1205	1179	561	1863	3718	1598	416	3659	1572
Grp Volume(v), veh/h	109	0	162	94	0	31	125	1286	65	16	807	55
Grp Sat Flow(s),veh/h/ln	1389	0	1672	1205	0	1740	1863	1859	1598	416	1830	1572
Q Serve(g_s), s	5.7	0.0	7.1	6.2	0.0	1.2	2.3	15.0	1.2	1.7	11.7	1.5
Cycle Q Clear(g_c), s	6.9	0.0	7.1	13.3	0.0	1.2	2.3	15.0	1.2	3.7	11.7	1.5
Prop In Lane	1.00		0.71	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	286	189	0	298	491	2402	1032	281	1770	761
V/C Ratio(X)	0.36	0.00	0.57	0.50	0.00	0.10	0.25	0.54	0.06	0.06	0.46	0.07
Avail Cap(c_a), veh/h	314	0	295	189	0	298	654	2402	1032	281	1770	761
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	0.0	30.4	36.5	0.0	28.0	8.2	7.7	5.2	12.2	13.7	11.0
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.7	0.0	0.1	0.1	0.9	0.1	0.4	0.8	0.2
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	1.9	0.0	2.9	1.8	0.0	0.5	0.7	4.5	0.3	0.2	4.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	31.8	37.3	0.0	28.0	8.3	8.5	5.3	12.6	14.5	11.2
LnGrp LOS	C	A	C	D	A	C	A	A	A	B	B	B
Approach Vol, veh/h		271			125			1476			878	
Approach Delay, s/veh		31.6			35.0			8.4			14.3	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.0	46.0		21.0		59.0		21.0				
Change Period (Y+Rc), s	5.5	7.3		* 7.3		7.3		7.3				
Max Green Setting (Gmax), s	14.5	31.7		* 14		51.7		13.7				
Max Q Clear Time (g_c+I1), s	4.3	13.7		9.1		17.0		15.3				
Green Ext Time (p_c), s	0.1	8.6		0.3		11.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	10	20	30	5	20	30
Future Volume (vph)	10	20	30	5	20	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			100		100	
Link Speed (mph)	25			25	25	
Link Distance (ft)	314			325	406	
Travel Time (s)	8.6			8.9	11.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	0	40	57	0
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

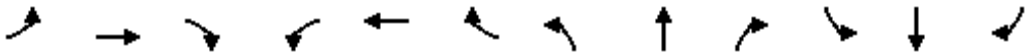
Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	10	20	30	5	20	30
Future Vol, veh/h	10	20	30	5	20	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	9	9	2	2
Mvmt Flow	11	23	34	6	23	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	34	0	97	23
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	-	-	4.19	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.281	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1533	-	902	1054
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	949	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1533	-	882	1054
Mov Cap-2 Maneuver	-	-	-	-	882	-
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	928	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.3	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	978	-	-	1533	-
HCM Lane V/C Ratio	0.058	-	-	0.022	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	1	80	1	1	1	55	35	1	1	35	15
Future Volume (vph)	15	1	80	1	1	1	55	35	1	1	35	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		327			194			539			406	
Travel Time (s)		8.9			5.3			14.7			11.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	111	0	0	3	0	0	106	0	0	59	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

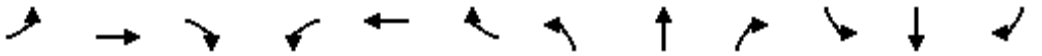
Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	1	80	1	1	1	55	35	1	1	35	15
Future Vol, veh/h	15	1	80	1	1	1	55	35	1	1	35	15
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	7	7	7
Mvmt Flow	17	1	93	1	1	1	64	41	1	1	41	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	223	222	50	269	230	42	58	0	0	42	0	0
Stage 1	52	52	-	170	170	-	-	-	-	-	-	-
Stage 2	171	170	-	99	60	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.11	6.51	6.21	4.12	-	-	4.17	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.509	4.009	3.309	2.218	-	-	2.263	-	-
Pot Cap-1 Maneuver	735	678	1021	686	672	1032	1546	-	-	1535	-	-
Stage 1	963	854	-	834	760	-	-	-	-	-	-	-
Stage 2	833	760	-	910	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	709	649	1021	602	643	1032	1546	-	-	1535	-	-
Mov Cap-2 Maneuver	709	649	-	602	643	-	-	-	-	-	-	-
Stage 1	923	853	-	799	728	-	-	-	-	-	-	-
Stage 2	796	728	-	825	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10	4.5	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1546	-	-	950	717	1535	-	-
HCM Lane V/C Ratio	0.041	-	-	0.118	0.005	0.001	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1150	25	15	1405	35	15	1	10	40	5	95
Future Volume (vph)	60	1150	25	15	1405	35	15	1	10	40	5	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	355		305	330		290	0		0	0		100
Storage Lanes	1		1	1		1	0		0	0		1
Taper Length (ft)	100			100			100			100		
Link Speed (mph)		55			55			25			25	
Link Distance (ft)		989			984			394			539	
Travel Time (s)		12.3			12.2			10.7			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1198	26	16	1464	36	0	27	0	0	47	99
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	1150	25	15	1405	35	15	1	10	40	5	95
Future Vol, veh/h	60	1150	25	15	1405	35	15	1	10	40	5	95
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	355	-	305	330	-	290	-	-	-	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	3	3	3
Mvmt Flow	63	1198	26	16	1464	36	16	1	10	42	5	99

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1500	0	0	1224	0	0	2091	2856	599	2222	2846	732
Stage 1	-	-	-	-	-	-	1324	1324	-	1496	1496	-
Stage 2	-	-	-	-	-	-	767	1532	-	726	1350	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.52	6.52	6.92	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.56	5.56	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.51	4.01	3.31	3.53	4.03	3.33
Pot Cap-1 Maneuver	443	-	-	565	-	-	30	17	447	~ 24	17	361
Stage 1	-	-	-	-	-	-	166	225	-	127	183	-
Stage 2	-	-	-	-	-	-	363	179	-	380	215	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	443	-	-	565	-	-	18	14	447	~ 20	14	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	91	-	97	114	-
Stage 1	-	-	-	-	-	-	142	193	-	109	178	-
Stage 2	-	-	-	-	-	-	249	174	-	317	184	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	34.2	35.4
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	150	443	-	-	565	-	-	99	361
HCM Lane V/C Ratio	0.181	0.141	-	-	0.028	-	-	0.473	0.274
HCM Control Delay (s)	34.2	14.5	-	-	11.6	-	-	70.5	18.7
HCM Lane LOS	D	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.1	-	-	2.1	1.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

APPENDIX E

TRAFFIC GAP CALCULATIONS

Gap Analysis Calculations
Capitol Drive & Highfield Road

Inputs

Lanes on Major St. (both dir.)	4 lanes	*EB=2 lanes, WB=2 lanes*
%HV on Minor Street (AM)	1.6%	*New traffic from minor = low truck %*
%HV on Minor Street (PM, SAT)	3.3%	*New traffic from minor = low truck %*
Grade	0.0%	
Gap Acceptance	2 stage	
Legs at Intersection	4 leg	

Calculations

	AM					PM, SAT				
	$T_{c,x}$	$T_{f,x}$	1 Veh	2 Veh	3 Veh	$T_{c,x}$	$T_{f,x}$	1 Veh	2 Veh	3 Veh
Left turn from major	3.1	2.2	3.1	8.5	13.8	3.2	2.2	3.2	8.6	14.0
Right Turn from Minor	5.9	3.3	5.9	15.2	24.4	6.0	3.3	6.0	15.3	24.6
Through Traffic on Minor	5.5	4.0	5.5	15.1	24.6	5.6	4.0	5.6	15.2	24.8
Left Turn from Minor	6.5	3.5	6.5	16.6	26.6	6.6	3.5	6.6	16.7	26.8

Equations

$T_{c,x} = T_{c,base} + T_{c,HV}P_{HV} + T_{c,G}G - T_{c,T} - T_{3,LT}$

$T_{f,x} = T_{f,base} + T_{f,HV}P_{HV}$

Definitions

$T_{c,x}$	Critical gap for movement
$T_{c,base}$	base critical gap (Exhibit 17-5)
$T_{c,HV}$	HV adjustment factor (1.0 2-ln, 2.0 4-ln) for major street
P_{HV}	proportion of heavy vehicles for minor movement
$T_{c,G}$	grade adjustment factor (0.1 mvmts 9 & 12, 0.2 mvmts 7, 8, 10, & 11)
G	percent grade divided by 100
$T_{c,T}$	2-stage gap acceptance adjustment factor (1.0 for 1st or 2nd stage, 0.0 for only 1 stage)
$T_{3,LT}$	intersection geometry adjsutment factor (0.7 minor street left turn at 3-leg intersection, 0.0 otherwise)
$T_{f,x}$	minor movement follow-up time
$T_{f,base}$	base follow-up time from exhibit 17-5
$T_{f,HV}$	heavy vehicle adjustment factor (0.9 for 2-ln major, 1.0 for 4-ln major)
P_{HV}	proportion of heavy vehicles for minor movement

Look Up Tables

Major Street	$T_{c,HV}$	$T_{f,HV}$
2 lanes	1.0	0.9
4 lanes	2.0	1.0

Grade Adjust.	$T_{c,G}$
Minor RT	0.1
Minor LT/TH	0.2

Gap Acceptance	$T_{c,t}$
1 stage	0.0
2 stage	1.0

Geometry	$T_{3,lt}$
3-leg	0.7
4-leg	0.0

HCM Exhibit 17-5	Base Critical Gap $T_{c,base}$ (s)		Base follow-up
Vehicle Movement	2-Ln Major	4-Ln Major	$T_{f,base}$ (s)
LT from Major	4.1	4.1	2.2
RT from Minor	6.2	6.9	3.3
TH on Minor	6.5	6.5	4.0
LT from Minor	7.1	7.5	3.5

Calculated Values

$T_{c,HV}$	$T_{f,HV}$
2.0	1.0

G
0.0

$T_{c,t}$
1.0

$T_{3,lt}$
0.0

$T_{c,base}$	$T_{f,base}$	$T_{c,G}$
4.1	2.2	0.0
6.9	3.3	0.1
6.5	4.0	0.2
7.5	3.5	0.2

	P_{HV}
AM	0.02
PM	0.03

Weekday AM 4/13/20203															
Westbound Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
7:15 AM	6	22	10	13	7	5	1	0	2	1	0	0	0	0	2
7:30 AM	8	14	11	9	9	4	2	2	0	0	0	2	1	2	0
7:45 AM	9	15	14	7	2	6	6	1	1	2	0	0	0	0	2
8:00 AM	11	16	17	7	8	3	3	2	2	2	1	1	0	0	0
Total	34	67	52	36	26	18	12	5	5	5	1	3	1	2	4
Eastbound Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
7:15 AM	9	9	7	7	5	2	1	3	3	0	0	0	0	0	4
7:30 AM	8	11	6	2	5	3	2	1	0	0	3	1	0	0	3
7:45 AM	6	16	7	5	3	3	3	2	3	1	2	0	0	0	2
8:00 AM	11	15	5	4	0	4	3	3	1	1	1	0	3	0	2
Total	34	51	25	18	13	12	9	9	7	2	6	1	3	0	11
Combined Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
7:15 AM	23	15	8	4	4	1	1	0	0	0	0	0	0	0	1
7:30 AM	14	25	11	7	1	1	0	0	0	0	0	1	0	0	0
7:45 AM	21	17	12	4	0	3	3	0	1	0	0	0	0	0	0
8:00 AM	23	14	11	5	4	2	2	0	0	0	0	0	0	0	0
Total	81	71	42	20	9	7	6	0	1	0	0	1	0	0	1

Gap Calcs	SB RT from Minor		
	Gap Times		Gaps
1 Veh (x1)	5.9	15.08	142
2 Veh (x2)	15.18	24.3	44
3 Veh (x3)	24.4	& up	29
Equivalent Gaps			214

Westbound Gap

NB RT from Minor		
Gap Times		Gaps
5.9	15.08	75
15.18	24.3	57
24.4	& up	45
		177

Eastbound Gap

Gap Calcs	SB TH from Minor			SB LT from Minor		
	Gap Times		Gaps	Gap Times		Gaps
1 Veh (x1)	5.5	14.98	155	6.5	16.48	73
2 Veh (x2)	15.08	24.5	46	16.58	26.5	47
3 Veh (x3)	24.6	& up	28	26.6	& up	40
Equivalent Gaps			228			160

Stage 1-WB Gap *Stage 2-EB Gap*

NB TH from Minor			NB LT from Minor		
Gap Times		Gaps	Gap Times		Gaps
5.5	14.98	85	6.5	16.48	132
15.08	24.5	58	16.58	26.5	36
24.6	& up	44	26.6	& up	20
		187			189

Stage 1-EB Gap *Stage 2-WB Gap*

Gap Calcs	EB LT from Major		
	Gap Times		Gaps
1 Veh (x1)	3.1	8.38	141
2 Veh (x2)	8.5	13.7	141
3 Veh (x3)	13.8	& up	122
Equivalent Gaps			404

Westbound Gap

WB LT from Major		
Gap Times		Gaps
3.1	8.38	95
8.5	13.7	76
13.8	& up	149
		320

Eastbound Gap

Weekday PM 4/13/23															
Westbound Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
4:15 PM	2	15	14	9	4	1	1	1	0	0	0	1	0	3	0
4:30 PM	6	20	15	12	5	0	1	2	0	0	0	0	1	0	0
4:45 PM	5	13	13	7	1	4	2	1	1	1	1	0	0	0	0
5:00 PM	9	21	21	6	0	1	4	1	0	0	1	0	0	0	1
Total	22	69	63	34	10	6	8	5	1	1	2	1	1	3	1
Eastbound Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
4:15 PM	7	8	7	6	3	0	0	1	3	1	1	1	0	1	4
4:30 PM	11	7	4	2	0	4	2	3	0	1	0	2	1	0	7
4:45 PM	6	13	8	3	3	3	1	3	0	0	1	1	1	1	3
5:00 PM	8	8	4	4	1	4	3	0	1	2	0	1	0	1	6
Total	32	36	23	15	7	11	6	7	4	4	2	5	2	3	20
Combined Gaps															
Start Time	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29
4:15 PM	11	16	10	3	2	1	1	0	0	1	0	0	0	0	0
4:30 PM	13	18	8	5	3	1	1	0	0	0	0	0	0	0	0
4:45 PM	9	13	5	2	3	3	1	0	0	0	0	0	0	0	0
5:00 PM	12	20	10	4	0	1	2	0	0	0	0	0	0	0	0
Total	45	67	33	14	8	6	5	0	0	1	0	0	0	0	0

Gap Calcs	SB RT from Minor		
	Gap Times		Gaps
1 Veh (x1)	6.0	15.17	118
2 Veh (x2)	15.27	24.5	25
3 Veh (x3)	24.6	& up	17
Equivalent Gaps			160

Westbound Gap

NB RT from Minor		
Gap Times		Gaps
6.0	15.17	60
15.27	24.5	41
24.6	& up	86
		187

Eastbound Gap

Gap Calcs	SB TH from Minor			SB LT from Minor		
	Gap Times		Gaps	Gap Times		Gaps
1 Veh (x1)	5.6	15.07	131	6.6	16.57	57
2 Veh (x2)	15.17	24.7	26	16.67	26.7	41
3 Veh (x3)	24.8	& up	17	26.8	& up	73
Equivalent Gaps			174			171

Stage 1-WB Gap *Stage 2-EB Gap*

NB TH from Minor			NB LT from Minor		
Gap Times		Gaps	Gap Times		Gaps
5.6	15.07	66	6.6	16.57	104
15.17	24.7	43	16.67	26.7	18
24.8	& up	85	26.8	& up	14
		194			135

Stage 1-EB Gap *Stage 2-WB Gap*

Gap Calcs	EB LT from Major		
	Gap Times		Gaps
1 Veh (x1)	3.2	8.47	149
2 Veh (x2)	8.6	13.9	83
3 Veh (x3)	14.0	& up	46
Equivalent Gaps			278

Westbound Gap

WB LT from Major		
Gap Times		Gaps
3.2	8.47	75
8.6	13.9	58
14.0	& up	142
		275

Eastbound Gap

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 4.

DATE: May 18, 2023

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding a Certified Survey Map for Wildeck, Inc. for Property Located on East North Street in the City of Waukesha for the Purpose of Dedicating the West Half of East North Street that is Currently Highway Right-Of-Way

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Wildeck CSM staff report 5.18.23

Wildeck CSM narrative

Wildeck CSM

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 May 18, 2023

Date: May 11, 2023

Project Name: Wildeck Waukesha Certified Survey Map

Project Address/Tax Key No.: Pewaukee Rd./PWC 1002996001

Applicant: Wildeck Redevelopment

Property Owner: North Street Plant15, LLC

Current Zoning: M-5A

2050 Land Use Map Designation: Floodplains, Lowland & Upland Conservancy and Other Natural Areas

Use of Surrounding Properties: The quarry is to the north and east with the City of Waukesha to the south and west.

Project/Description Analysis:

The applicant filed a Certified Survey Map Application regarding the Wildeck redevelopment project on East North Street in the City of Waukesha. The vast majority of the CSM (Lots 1, 2, and 4) and all buildings are located within the City of Waukesha; however, Lot 3 is located within the City of Pewaukee. As such, the City must also review and approve the CSM.

Lot 3 is a small, 0.67-acre parcel, that is used by Wildeck as the back corner of their parking lot. Overall, the CSM includes four lots and will dedicate the west half of East North Avenue that is currently highway right-of-way.

Note that any improvements proposed now or in the future within Lot 3 are subject to review and approval by the City of Pewaukee.

Recommendation:

A motion to recommend approval of the Certified Survey Map for property bearing Tax Key No. PWC 1002996001.

April 13, 2023

Project/CSM Narrative

Project: Office Addition for WilDeck, Inc.
1900 E. North Street
Waukesha, WI

VJS Construction Services on behalf of North Street Plant15, LLC is submitting a Certified Survey Map for review and approval in association with a redevelopment project and office addition on to the existing facility located on the west side of E North Street in the City of Waukesha. The purpose of the CSM is to clean up the east property line along E. North Street and officially dedicate the west side of E North Street to the City of Waukesha. The west half of the right-of-way is highway right of way per DOT Plat Project No 805 although it was never officially dedicated. The CSM is being submitted to the City of Pewaukee as one of the existing lots (Lot 3) that the City of Waukesha has requested to be included in the CSM is within the City of Pewaukee jurisdiction. No changes to the existing property are proposed.

Proposed site improvements of the redevelopment project include: demolition of existing buildings, reduction of impervious surfaces, construction of parking to serve the office addition, utility improvements, and landscape improvements. The office addition will be located on the east side of the existing South manufacturing building. The three-story addition is approximately 40,000 square feet with exterior finishes consisting of utility sized brick veneer, metal paneling, and storefront windows. Access to the existing development will remain from the north and south driveways off of E. North Street. Parking along E North Street will generally be provided within the footprint of the existing building being demolished and will encroach closer to the right-of-way/property line than currently exists.

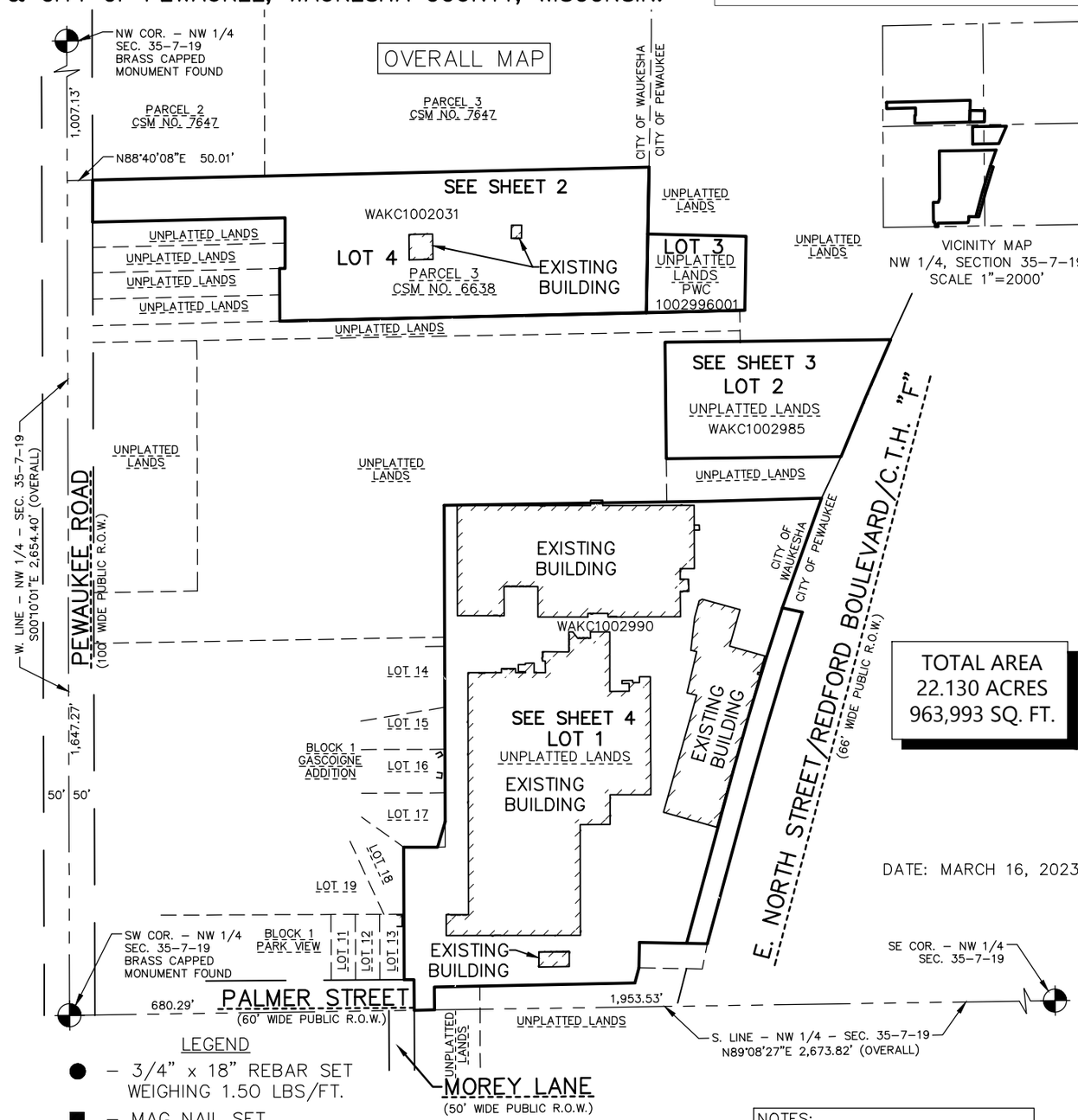
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CERTIFIED SURVEY MAP NO. _____

FOR

NORTH STREET PLANT15, LLC

PARCEL 3, CSM NO. 6638, PART OF LOT 17, BLOCK 1, GASCOIGNE ADDITION & PART OF THE NW 1/4, NE 1/4, SW 1/4 & SE 1/4 OF THE NW 1/4, SECTION 35, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF WAUKESHA & CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.



LEGEND

- ● – 3/4" x 18" REBAR SET WEIGHING 1.50 LBS/FT.
- ■ – MAG NAIL SET
- ▲ – 1" IRON PIPE FOUND
- ⊘ – 2" IRON PIPE FOUND
- ○ – 3/4" REBAR FOUND
- ⊡ – MAG NAIL FOUND
- △ – RAILROAD SPIKE FOUND
- ✕ – CUT "X" FOUND
- ⊕ – SECTION CORNER MONUMENT FOUND
- (R.A.) "RECORDED AS" INFORMATION

NORTH POINT REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD83). THE WEST LINE OF THE NORTHWEST 1/4 OF SECTION 35 HAS A BEARING OF SOUTH 00°–10'–01" EAST.

NORTH

300' 0 300' 600'

1"= 300'

SCALE FEET

NOTES:

SEE SHEET 2 THROUGH SHEET 4 FOR LOT DIMENSIONS.

SEE SHEET 5 FOR EASEMENTS.

OWNER:
NORTH STREET PLANT15, LLC
6103 N. 76TH STREET
MILWAUKEE, WI 53218

DRAFTED BY: RYAN WILGREEN, PLS

SHEET 1 OF 10 SHEETS

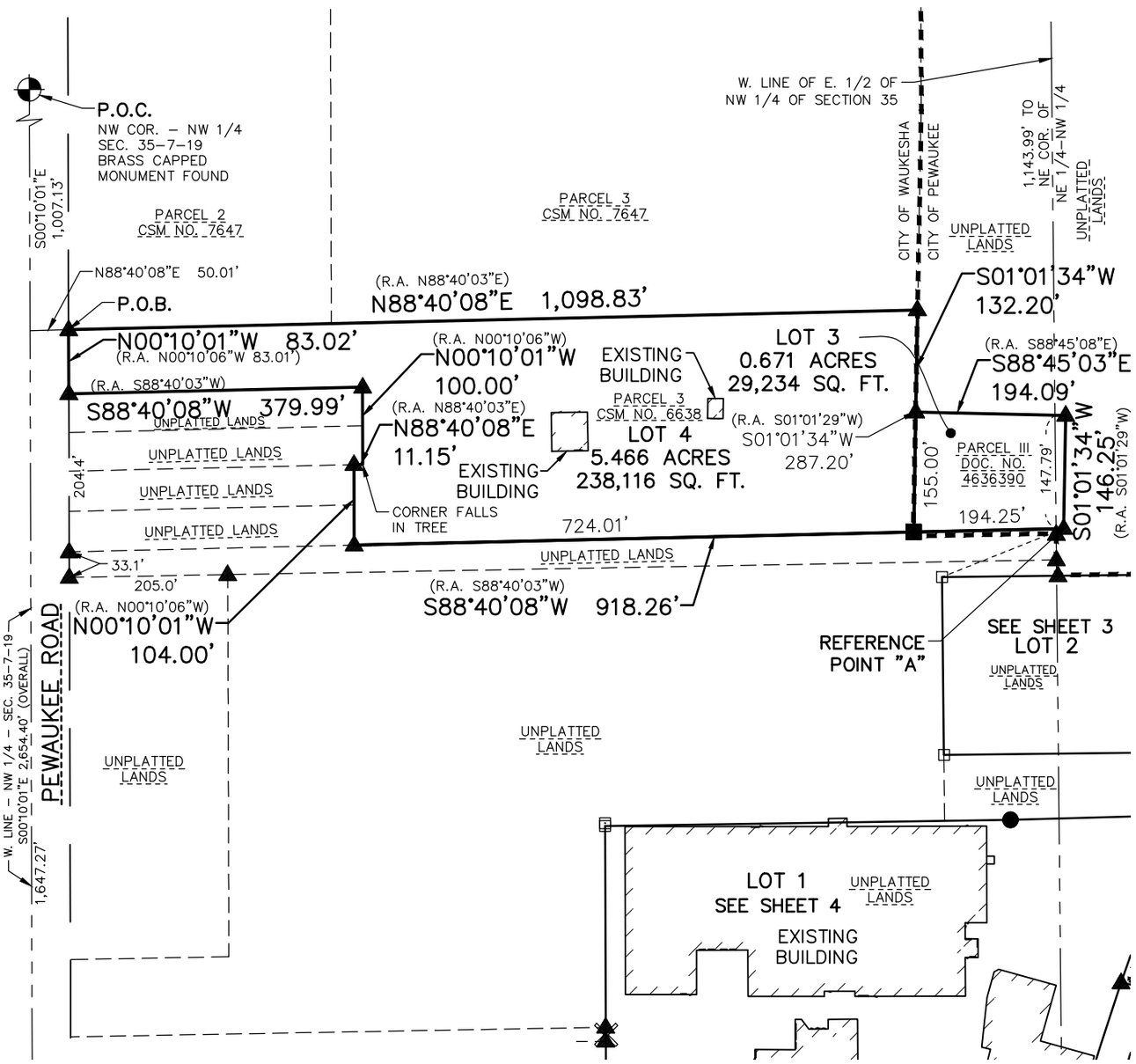
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CERTIFIED SURVEY MAP NO. _____

FOR

NORTH STREET PLANT15, LLC

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200' 0 200' 400'

1"= 200'

SCALE FEET

SHEET 2 OF 10 SHEETS

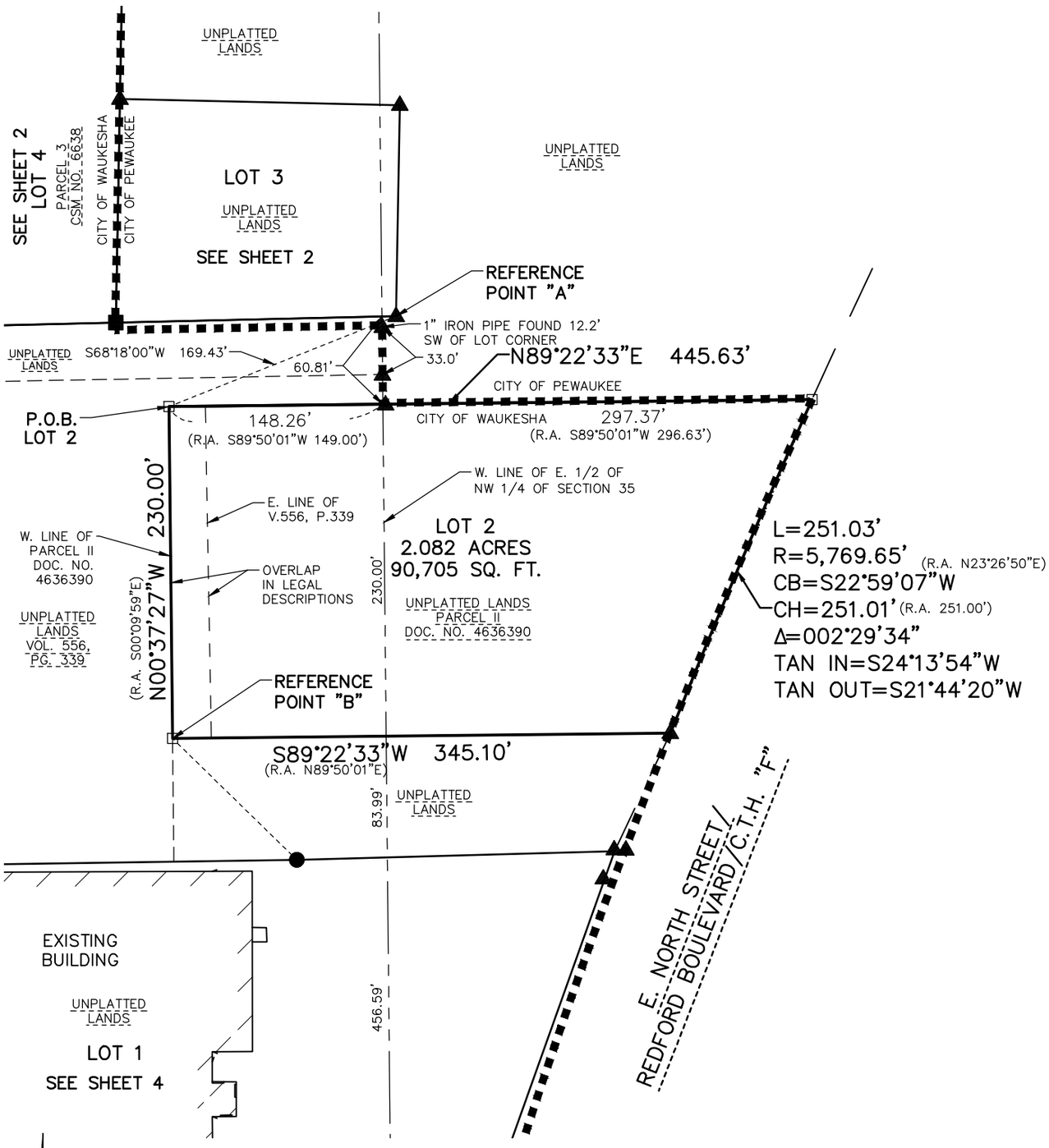
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100' 0 100' 200'

1"= 100'

SCALE FEET

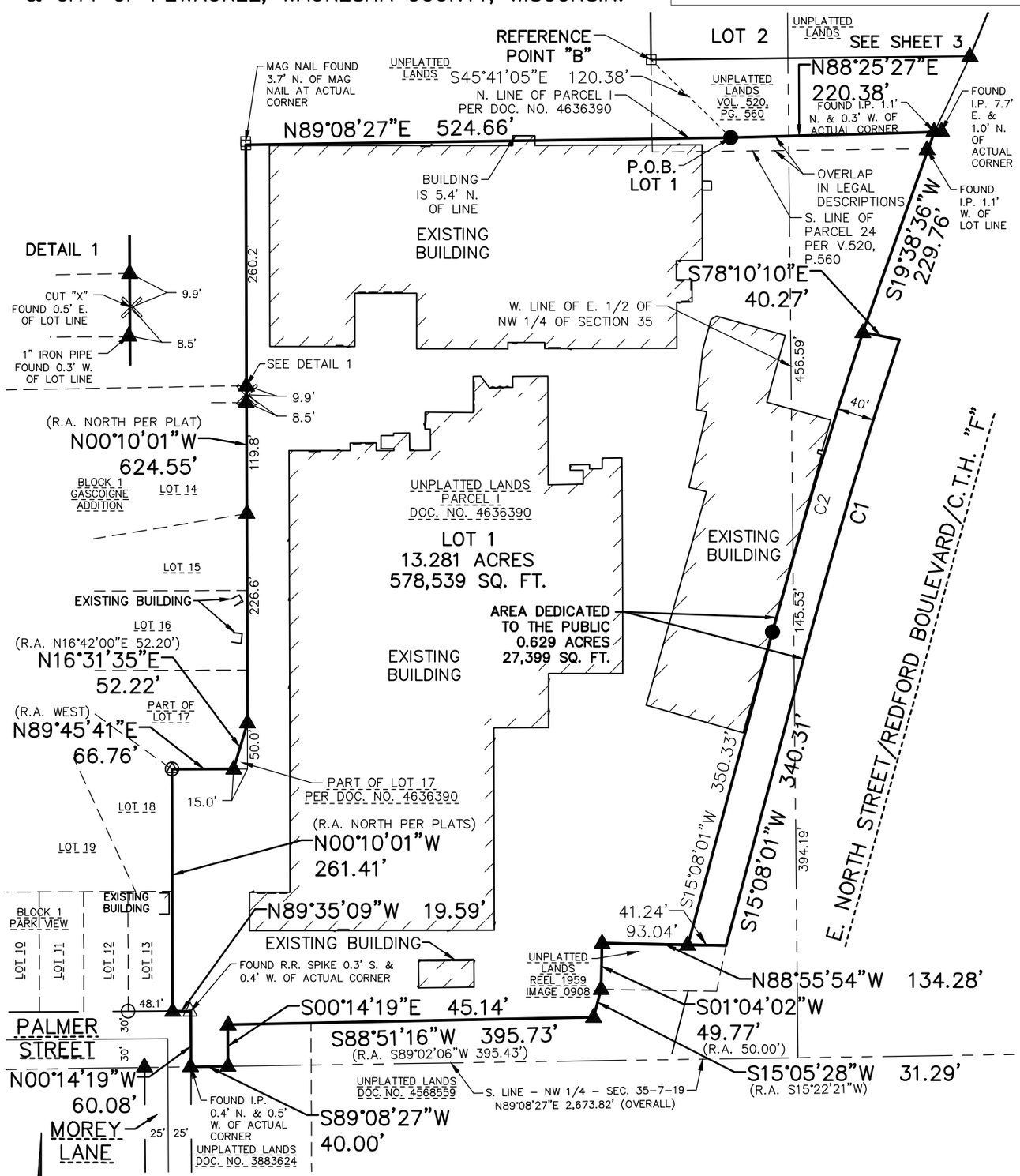
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Curve	Length	Radius	Chord Bearing	Chord Length	Delta	Tangent	Tangent
C1	340.81'	5,815.23'	S16°49'31"W	340.76'	003°21'28"	S18°30'15"W	S15°08'46"W
C2	338.47'	5,855.23'	S16°48'08"W	338.43'	003°18'44"	S18°27'30"W	S15°08'46"W

SHEET 4 OF 10 SHEETS

NORTH POINT REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD83). THE WEST LINE OF THE NORTHWEST 1/4 OF SECTION 35 HAS A BEARING OF SOUTH 00°–10'–01" EAST.

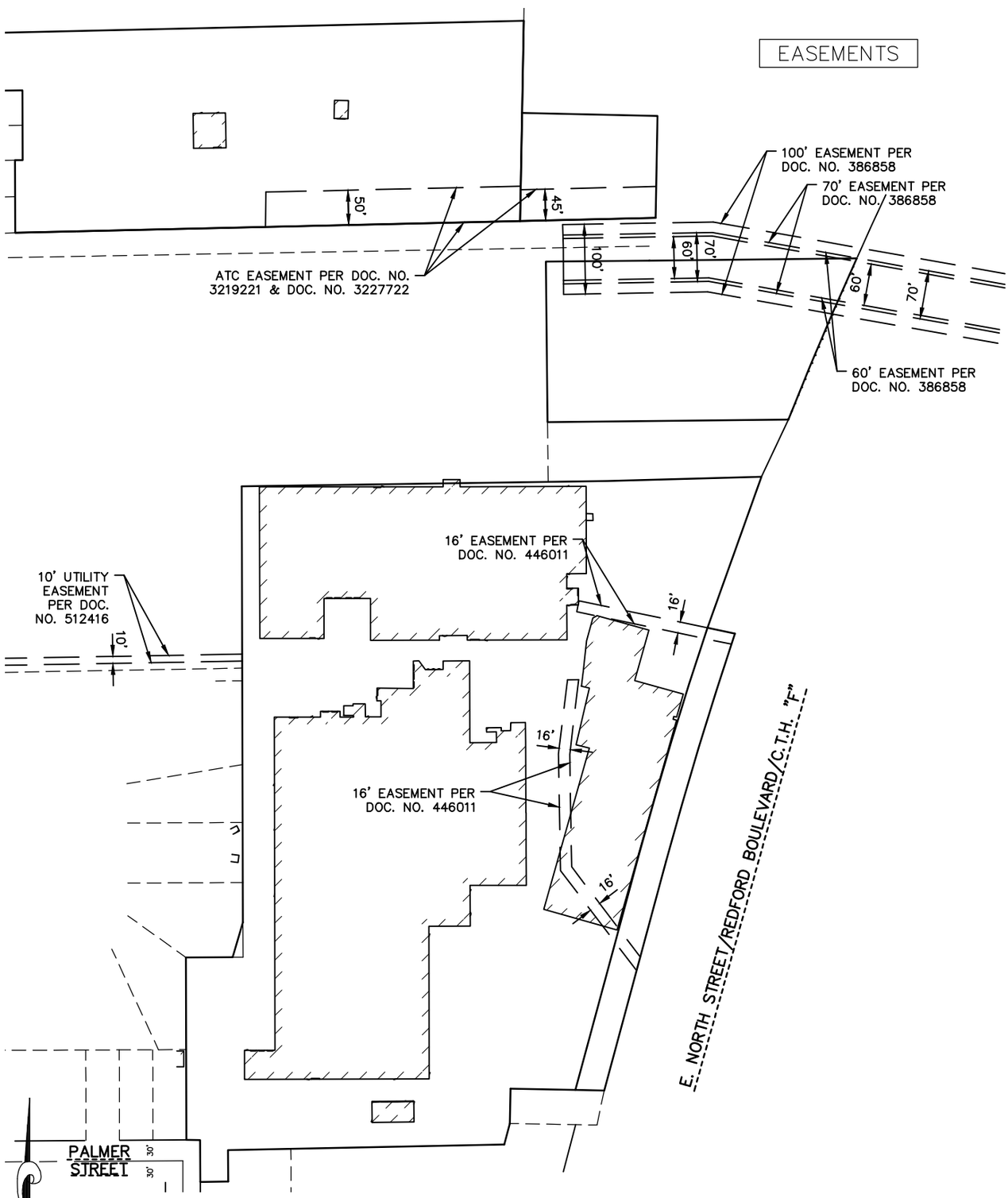
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FOR

NORTH STREET PLANT15, LLC

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200' 0 200' 400'

1"= 200'

SCALE FEET

SHEET 5 OF 10 SHEETS

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SURVEYOR'S CERTIFICATE

I, Ryan Wilgreen, Professional Land Surveyor, hereby certify:

That I have surveyed, divided and mapped a parcel of land described below.

That I have made such Certified Survey under the direction of North Street Plant15, LLC bounded and described as follows:

Parcel 3 of Certified Survey Map No. 6638, recorded in the Waukesha County Register of Deeds Office in Volume 55 of Certified Survey Maps on Page 168 as Document No. 1697530, part of Lot 17, Block 1 of Gascoigne Addition, recorded in the Waukesha County Register of Deeds Office in Volume 19 of Plats on Page 56 as Document No. 422563 and part of the Northwest 1/4, Northeast 1/4, Southwest 1/4 and Southeast 1/4 of the Northwest 1/4 of Section 35, Township 7 North, Range 19 East, City of Waukesha and City of Pewaukee, Waukesha County, Wisconsin being more particularly described as follows:

Commencing at the Northwest corner of the Northwest 1/4 of said Section 35; thence South 00°-10'-01" East along the West line of said Northwest 1/4, a distance of 1,007.13 feet to the Westerly extension of the North line of said Parcel 3; thence North 88°-40'-08" East along said Westerly extension, a distance of 50.01 feet to the East right-of-way line of Pewaukee Road, said point being the point of beginning; thence continuing North 88°-40'-08" East along the North line of said Parcel 3, a distance of 1,098.83 feet to the Northeast corner of said Parcel 3; thence South 01°-01'-34" West along the East line of said Parcel 3, a distance of 132.20 feet to the Northwest corner of lands described as Parcel III per Document No. 4636390; thence South 88°-45'-03" East along the North line of said described lands, a distance of 194.09 feet to the Northeast corner of said described lands; thence South 01°-01'-34" West along the East line of said described lands, a distance of 146.25 feet to the Easterly extension of the South line of said Parcel 3, said point to be known as Reference Point "A"; thence South 88°-40'-08" West along said Easterly extension and said South line, a distance of 918.26 feet to a Westerly line of said Parcel 3; thence North 00°-10'-01" West along said Westerly line, a distance of 104.00 feet to a Westerly line of said Parcel 3; thence North 88°-40'-08" East along said Westerly line, a distance of 11.15 feet to a Westerly line of said Parcel 3; thence North 00°-10'-01" West along said Westerly line, a distance of 100.00 feet to a Southerly line of said Parcel 3; thence South 88°-40'-08" West along said Southerly line, a distance of 379.99 feet to the East right-of-way line of Pewaukee Road; thence North 00°-10'-01" West along said East line, a distance of 83.02 feet to the point of beginning;

Also including

Commencing at said Reference Point "A"; thence South 68°-18'-00" West, a distance of 169.43 feet to the Northwest corner of lands described as Parcel II per Document No. 4636390, said point being the point of beginning of Lot 2 of this Certified Survey Map; thence North 89°-22'-33" East along the North line of said described lands, a distance of 445.63 feet to the Westerly right-of-way line of E. North Street; thence Southwesterly 251.03 feet along said Westerly line on a curve to the left having a radius of 5,769.65 feet, the chord of said curve bears South 22°-59'-07" West, a chord distance of 251.01 feet to the South line of said described lands; thence South 89°-22'-33" West along said South line, a distance of 345.10 feet to the Southwest corner of said described lands, said point to be known as Reference Point "B"; thence North 00°-37'-27" West along the West line of said described lands, a distance of 230.00 feet to the point of beginning of said Lot 2;

Continued on Sheet 7

CERTIFIED SURVEY MAP NO. _____

PARCEL 3, CSM NO. 6638, PART OF LOT 17, BLOCK 1, GASCOIGNE ADDITION & PART OF THE NW 1/4, NE 1/4, SW 1/4 & SE 1/4 OF THE NW 1/4, SECTION 35, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF WAUKESHA & CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE (continued)

Also including

Commencing at said Reference Point "B"; thence South 45°-41'-05" East, a distance of 120.38 feet to the North line of lands described as Parcel I per Document No. 4636390, said point being the point of beginning of Lot 1 of this Certified Survey Map; thence North 88°-25'-27" East along said North line, a distance of 220.38 feet to the Westerly right-of-way line of E. North Street; thence South 19°-38'-36" West along said Westerly line, a distance of 229.76 feet; thence South 78°-10'-10" East, a distance of 40.27 feet to the former centerline of State Trunk Highway "164"; thence Southwesterly 340.81 feet along said former centerline on a curve to the left having a radius of 5,815.23 feet, the chord of said curve bears South 16°-49'-31" West, a chord distance of 340.76 feet; thence South 15°-08'-01" West along said former centerline, a distance of 340.31 to the North line of lands described per Reel 1959, Image 0908; thence North 88°-55'-54" West along said North line, a distance of 134.28 feet to the Northwest corner of said described lands; thence South 01°-04'-02" West along the West line of said described lands, a distance of 49.77 feet to the Southwest corner of said described lands; thence South 15°-05'-28" West along a Northerly line of lands described per Document No. 4568559, a distance of 31.29 feet to a Northerly line of said described lands; thence South 88°-51'-16" West along said Northerly line and its Westerly extension, a distance of 395.73 feet to a Northerly line of lands described per Document No. 3883624; thence South 00°-14'-19" East along said Northerly line, a distance of 45.14 feet to the South line of the Northwest 1/4 of Section 35; thence South 89°-08'-27" West along said South line, a distance of 40.00 feet to the East right-of-way line of Morey Lane; thence North 00°-14'-19" West along said East line, a distance of 60.08 feet to the North right-of-way line of Palmer Street; thence North 89°-35'-09" West along said North line, a distance of 19.59 feet to the East line of Lot 13, Block 1 of Park View Subdivision; thence North 00°-10'-01" West along said East line and the East line of Lot 18, Block 1 of said Gascoigne Addition, a distance of 261.41 feet to the South line of Lot 17, Block 1 of said Gascoigne Addition; thence North 89°-45'-41" East along said South line, a distance of 66.76 feet to the Westerly line of that part of said Lot 17 described per Document No. 4636390; thence North 16°-31'-35" East along said Westerly line, a distance of 52.22 feet to the East line of said Block 1; thence North 00°-10'-01" West along said East line and its Northerly extension, a distance of 624.55 feet to the North line of lands described as Parcel I per Document No. 4636390; thence North 89°-08'-27" East along said North line, a distance of 524.66 feet to the point of beginning of said Lot 1.

Said lands contain 22.130 acres (963,993 sq. ft.) of land more or less.

That such is a correct representation of all the exterior boundaries of the land surveyed and the land division thereof made.

That I have fully complied with the provisions of Section 236.34 of the Wisconsin Statutes and the Subdivision Ordinance of the City of Waukesha and the City of Pewaukee in surveying, dividing and mapping the same.

_____

Ryan Wilgreen, P.L.S. No. S-2647
ryan.w@excelengineer.com
Excel Engineering, Inc.
Fond du Lac, Wisconsin 54935
Project Number: 2206880

CERTIFIED SURVEY MAP NO. _____

PARCEL 3, CSM NO. 6638, PART OF LOT 17, BLOCK 1, GASCOIGNE ADDITION & PART OF THE NW 1/4, NE 1/4, SW 1/4 & SE 1/4 OF THE NW 1/4, SECTION 35, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF WAUKESHA & CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

OWNER'S CERTIFICATE

North Street Plant15, LLC, a limited liability company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said limited liability company caused the land described on this map to be surveyed, divided, mapped and dedicated as represented on this map.

North Street Plant15, LLC does further certify that this map is required by s.236.10 or s.236.12 to be submitted to the following for approval or objection:

1. City of Waukesha
2. City of Pewaukee

WITNESS the hand and seal of said owner this _____ day of _____, 20__.

North Street Plant15, LLC

_____

_____, _____
(Print) (Title)

STATE OF _____)

_____COUNTY)SS

Personally, came before me this _____ day of _____, 20___, the above named

_____ to me known to be the person who executed the foregoing instrument and acknowledged the same.

_____

Notary Public, _____ County, ____

My Commission Expires:_____

SHEET 8 OF 10 SHEETS

CERTIFIED SURVEY MAP NO. _____

PARCEL 3, CSM NO. 6638, PART OF LOT 17, BLOCK 1, GASCOIGNE ADDITION & PART OF THE NW 1/4, NE 1/4, SW 1/4 & SE 1/4 OF THE NW 1/4, SECTION 35, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF WAUKESHA & CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

CITY OF WAUKESHA PLAN COMMISSION APPROVAL

This Certified Survey Map is hereby approved by the City of Waukesha Planning Commission on this

_____ day of _____, 2023.

_____
Shawn Reilly, Mayor

_____
, Secretary

CITY OF WAUKESHA COMMON COUNCIL APPROVAL

This Certified Survey Map is hereby approved by the City of Waukesha Common Council on this

_____ day of _____, 2023.

_____
Shawn Reilly, Mayor

_____
Gina Kozlik, City Clerk

CERTIFIED SURVEY MAP NO. _____

PARCEL 3, CSM NO. 6638, PART OF LOT 17, BLOCK 1, GASCOIGNE ADDITION & PART OF THE NW 1/4, NE 1/4, SW 1/4 & SE 1/4 OF THE NW 1/4, SECTION 35, TOWNSHIP 7 NORTH, RANGE 19 EAST, CITY OF WAUKESHA & CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN.

CITY OF PEWAUKEE PLAN COMMISSION APPROVAL

This Certified Survey Map is hereby approved by the City of Pewaukee Planning Commission on this

_____ day of _____, 2023.

_____
Steve Bierce, Mayor

_____
, Secretary

CITY OF PEWAUKEE COMMON COUNCIL APPROVAL

This Certified Survey Map is hereby approved by the City of Pewaukee Common Council on this

_____ day of _____, 2023.

_____
Steve Bierce, Mayor

_____
Kelly Tarczewski, City Clerk

SHEET 10 OF 10 SHEETS

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 5.

DATE: May 18, 2023

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action and Public Hearing for Regal Development LLC to Rezone Property Located at N29 W22817 Marjean Lane from Rs-5 Single-Family Residential to B-3 General Business for the Purpose of Constructing a 50-Unit Self-Storage Facility (PWC 0914976)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Regal Storage staff report 5.18.23

Regal Storage narrative

Regal Storage rezoning exhibit

Regal Storage legal description

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 May 18, 2023

Date: May 9, 2023

Project Name: Rezoning Application, Conditional Use Application, and Site & Building Plan Review Application

Project Address/Tax Key No.: N29W22817 Marjean Lane/PWC 0914976

Applicant: Regal Development LLC

Property Owner: DUPLAINVILLE ACQUISITION LLC

Current Zoning: Rs-5-Single Family Residential

2050 Land Use Map Designation: Manufacturing/Fabrication/Warehousing

Use of Surrounding Properties: Residential to the south and east, and industrial to the north and west.

Project Description/Analysis:

The applicant submitted Rezoning, Conditional Use, and Site & Building Plan Review applications for the development of a 50-unit self-storage facility located at N29W22817 Marjean Lane. The proposal first came before the Plan Commission as a Conceptual Review at the January 19, 2023 meeting, and although most Commissioners spoke in general favor of the use, there were discussions about improving the design, as well as questions related to drainage.

The .88-acre property is currently vacant and zoned Rs-5 Single-Family Residential District. The lot abuts Marjean Lane and previously had an access easement through the residential property to the east to provide ingress/egress from Duplainville Road. Staff recently approved an access drive to the subject property from Marjean Lane and it is our understanding that the current property owner did or plans to discontinue the cross-access easement to Duplainville Road.

Rezoning

As noted above the property is currently zoned Rs-5. There are limited zoning and process options for this proposed development due to the size of the parcel. For example, it does not meet the minimum lot size of 2 acres for the M-1 or M-2 districts. The proposed rezoning is from Rs-5 to B-3 General Business District. The B-3 District allows a minimum lot area of 7,200 square feet and minimum lot width of 60-feet at the building setback line, which are both met.

Conditional Use

A Conditional Use Permit is required in order to allow a self-storage facility within the B-3 District. The B-3 District allows "Permitted and conditional uses allowed in the B-1, B-2 and B-4 districts and uses similar in character to the above-permitted uses and conducted as business on the premises and catering to the general public." Furthermore, Section 17.0209d. allows unclassified or unspecified uses to be approved by the Plan Commission if similar in nature to permitted uses within the district and would not detrimentally affect adjacent properties.

Sit and Building Plan Review
The preliminary site plan includes a mix of thirty-nine 10' x 20' storage units and eleven 10' x 10' storage units. The buildings consist primarily of LP Smartside (wood composite siding) with brick veneer towards the bottom, garage doors, and tinted windows facing the street and adjacent properties. The roof of the buildings is metal.

A security gate is being proposed at the entrance of the storage facility with a fence enclosing the buildings and drives. The applicant indicated that the fence would be chain-link and either six or eight feet in height. *Staff recommends that the fence be aluminum, with the possible exception of the gate as may be approved by staff, and a maximum of six feet in height.*

The traffic pattern being proposed is two-lane traffic at the entrance and then one-way traffic looping around the buildings. The applicant has indicated that wider drive aisles by the garage doors are incorporated to provide sufficient area for vehicles to pass by other vehicles that are parked at their unit.

Landscaping and plantings are being proposed on the south and east sides of the facility. Plantings consist of a total of 14 evergreen trees of two different types, White Fir and Serbian Spruce. In addition, some existing trees will remain, which are shown on the Grading & Erosion Control Plan and Landscape Plan. The proposed development meets the 40% greenspace requirement.

The lighting plan consists of a total of ten building lights. Eight lights will be mounted above garage doors on the two outer buildings and two lights will be mounted on the east and west ends of the middle building. The light on the west side is the same style as the other lights but has a higher wattage. All lights are mounted at eight feet high, and light levels are primarily at zero footcandles at the property lines.

The applicant provided a grading and erosion control plan that shall be subject to final approval by the Engineering Department prior to any land disturbance.

Recommendation:

A motion to recommend approval of the Rezoning for Regal Development LLC to rezone the property bearing Tax Key No. PWC 0914976 from Rs-5 Single Family Residential to B-3 General Business District.

A motion to recommend approval of the Conditional Use for the self-storage facility within the B-3 District for the property bearing Tax Key No. PWC 0914976.

and

A motion to approve the Site & Building Plans for the construction of a 50-unit self-storage facility upon the property bearing Tax Key No. PWC 0914976, *contingent upon Common Council approval of the concurrently submitted Rezoning and Conditional Use applications*.

Marjean Lane Development Building Plan Review

Project Narrative:

This .88 Acre lot located on Marjean Ln. is currently zoned residential, but is surrounded by an industrial park. The plan is to switch the zoning over to industrial and develop a gated, drive up, self-storage facility. I believe there is a need for this in the area because I called the owner of All One Storage LLC. He currently owns two self-storage unit facilities to the north and south of this site. (Located at W223 N3554 Duplainville Rd, Pewaukee, WI 53072 and 23050 Roundy Dr. Pewaukee, WI 53072). When I called I pretended like I needed a storage unit and I wanted to know how many units he had available. He stated that he currently had zero units available for rent and was 100% occupied. I looked at other facilities as well and they were mostly full with only a handful of vacancies. I believe self-storage would be great for this property because there isn't much else you could do with that size and shape of lot.

Site plans:

The goal for this design was something that looked more residential and not very industrial. Since the back side of this property currently faces houses I didn't want them to look at something unappealing. We came up with a plan to use a combination of brick, LP Smartside (Wood composite) and windows. The windows would be tinted so someone from the road couldn't see the items stored inside. Most storage units have garage doors facing the road to maximize space such as the one north of the site at W223 N3554 Duplainville Rd, Pewaukee, WI and the new Pewaukee just constructed at 229 Sussex St, Pewaukee, WI. My architect found a way to have all the garage doors face each other inside the buildings themselves so other property owners and people looking from the road will not see the garage doors on the perimeter of the building. We also would have a variety of pine / evergreen trees to help block the buildings out year-round.

Development schedule and Cost:

The goal is to have everything approved by May plan commission meeting. From there we have to clear the side and grade it. Then we have to lay the gravel base and pour the concrete slab. This should be done by the end of July. From there framing and electrical for the lights, security cameras and gates would take place for another month. Then siding, roof, garage doors and asphalt will take place and that will be about two months. If all went to plan I would open in the fall/early winter of 2023. I have a friend of mine currently building storage units for $34 per square foot. If then number of units I have proposed get passed there would be 39 10x20' units and 11 10x10' units coming to a total of (200sqft x 39 units) + (100sqft x 11 units) = 8,900 sqft x $34 a foot is $302,600 plus the cost of land $165,000 for a total cost/value of $467,600.

On the follow pages are the site plan renderings and scale drawings.

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NORTH

GRAPHICAL SCALE (FEET)

0 1" = 20' 40'

Coordinates referenced to the Wisconsin State Plane Coordinate System, South Zone (N.A.D. 1983/2011). Bearings are referenced to the west line of the Northwest 1/4 of Section 13, Township 7 North, Range 19 East has a bearing of N01°28'07"E.

LANDS TO BE REZONED FROM Rs-5 TO B-3:

Part of the Northwest ¼ and the Northeast ¼ of the Northwest ¼ of Section 13, Township 7 North, Range 19 East in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the Southwest corner of said Northwest ¼; Thence North 01° 28' 07" East (North 01° 28' 13" East - Record), along the West line of said Northwest ¼, 1400.40 feet; Thence South 89° 47' 49" East (South 89° 47' 43" East - Record), 1014.63 feet; Thence North 12° 11' 34" East (North 12° 11' 40" East - Record), 179.61 feet to the place of beginning of the lands to be described; Thence continuing North 12° 11' 34" East, 94.28 feet; Thence North 89° 47' 33" West, 1.47 feet to a point on the Easterly line of Marjean Lane; Thence North 12° 08' 27" East, along said Easterly line, 75.34 feet to the Southerly line of Lot 1, Certified Survey Map No. 11595, recorded in the Office of the Register of Deeds as Document No. 4290252, in Book 116, on page 30, of Certified Survey Maps; Thence South 84° 08' 23" East, along said Southerly line, 246.97 feet to angle point; Thence South 27° 58' 35" West, along said Southerly line, 92.22 feet; Thence North 63°40' 05" West, 1.21 feet; Thence South 28° 43' 28" West, 108.08 feet; thence North 79°11' 04" West, 187.00 feet to the place of beginning. Containing 38,664 square feet (0.8876 acres) of land.

Tax Key Number: PWC 0914976



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CHICAGO I MILWAUKEE : NATIONWIDE

WISCONSIN OFFICE:
20725 WATERTOWN ROAD SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888

N29W22817 MARJEAN LANE

CITY OF PEWAUKEE, WISCONSIN

REZONING EXHIBIT

REVISIONS

1	REVISED TO B-3	03/17/23

PEG JOB NO. 3115.00
PEG PM ASZ
DATE 02/28/2023
SCALE 1"=20'
DRAFTED BY: KGD

SHEET 1 of 1

SURVEY

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CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 6.

DATE: May 18, 2023

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding a Recommendation to the Common Council for a Conditional Use Permit and Site and Building Plans for Regal Development LLC for Property Located at N29 W22817 Marjean Lane for the Purpose of Constructing a 50-Unit Self-Storage Facility (PWC 0914976)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Regal Storage civil plans

Regal Storage architectural plans

Regal storage lighting plan

Regal Storage spec sheets

Regal Storage fence images

Regal Development draft conditional use permit

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LEGAL DESCRIPTION:

AS DESCRIBED IN CHICAGO TITLE INSURANCE COMPANY COMMITMENT NUMBER CO-13530 WITH AN EFFECTIVE DATE OF NOVEMBER 29, 2022.

Part of the Northwest ¼ and the Northeast ¼ of the Northwest ¼ of Section 13, Township 7 North, Range 19 East in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows:

Commencing at the Southwest corner of said Northwest ¼; Thence North 01° 28' 13" East, along the West line of said Northwest ¼, 1400.40 feet; Thence South 89° 47' 43" East, 1014.63 feet; Thence North 12° 11' 40" East, 179.61 feet to the place of beginning of the lands to be described; Thence continuing North 12° 11' 40" East, 94.28 feet; Thence North 89° 47' 27" West, 1.47 feet t a point on the Easterly line of Marjean Lane; Thence North 12° 08' 33" East, along said Easterly line, 75.34 feet to the Southerly line of Lot 1, Certified Survey Map No. 11595, recorded in the Office of the Register of Deeds as Document No. 4290252, in Book 116, on page 30, of Certified Survey Maps; Thence South 84° 08' 17" East, along said Southerly line, 246.97 feet to angle point; Thence South 27° 58' 41" West, along said Southerly line, 92.22 feet; Thence North 63°39' 59" West, 1.21 feet; Thence South 28° 43' 34" West, 108.08 feet; thence North 79°10' 58" West, 187.00 feet to the place of beginning.

Tax Key No.: PWC 0914.976
Address: W227 N2905 Duplainville Road

GENERAL NOTES

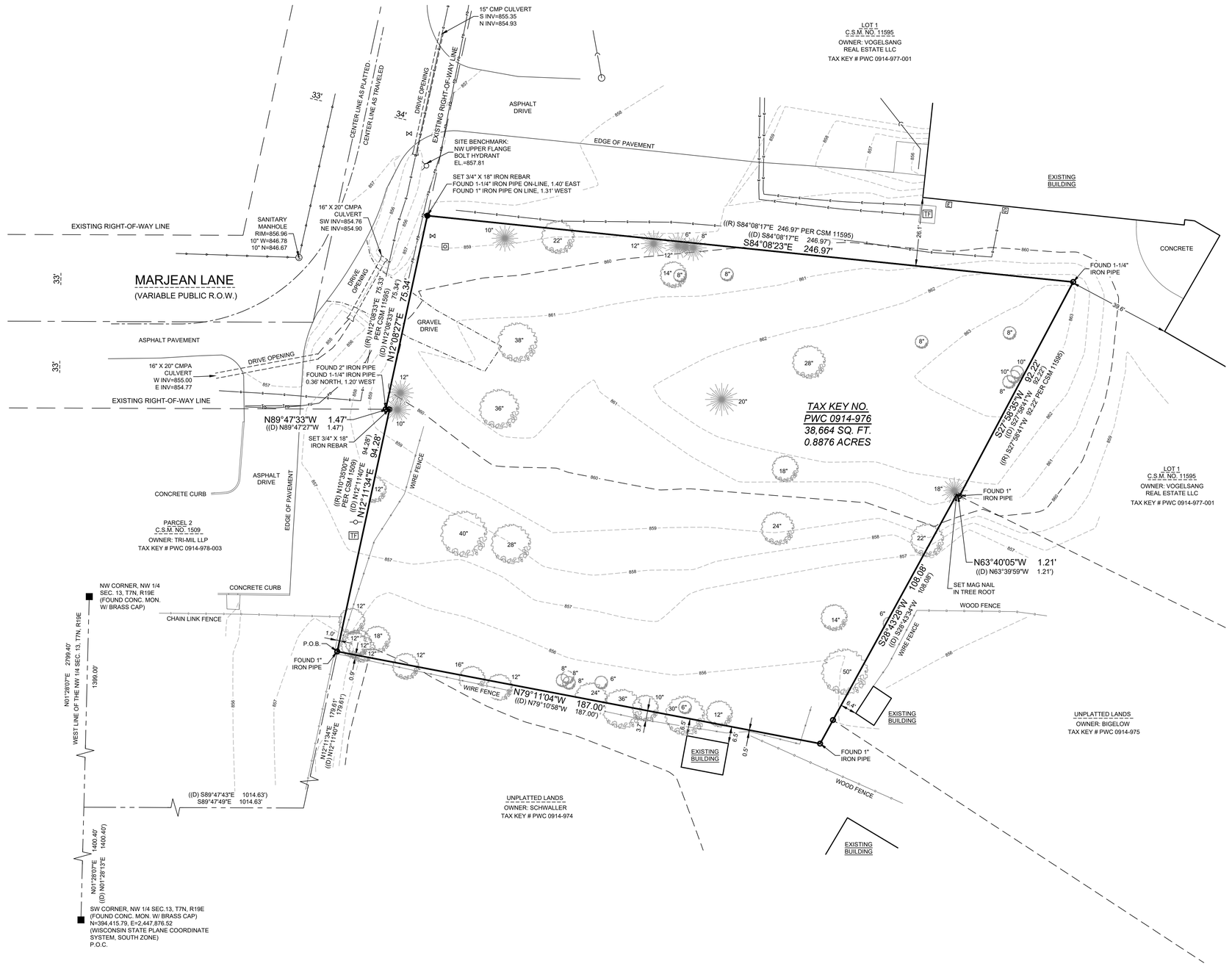
1. Survey prepared for: Regal Development, LLC
2. Field work completed on FEBRUARY 7, 2023.
3. At the time of this survey the subject property contained snow covered ground conditions. Pinnacle Engineering Group, LLC takes no responsibility for any improvements that can not be located based on a reasonable visual observation.
4. Flood Zone Classification: The property lies with in Zone "X" of the Flood Insurance Rate Map Community Panel No. 55133C0204G with an effective date of NOVEMBER 5, 2014. Zone "X" areas are determined to be outside the 0.2% annual chance floodplain.
5. Vertical Datum: North American Vertical Datum of 1988 (12), (NAVD88). Reference Benchmark: Chiseled Cross in top of hydrant located 117.77 feet northwest of the concrete monument with brass cap at the southwest corner of the Northwest 1/4 Section 13, Town 7 North, Range 19 East, Elevation = 857.794.
6. Underground utility locations shown are based on field location markings by Digger's Hotline ticket #20230600940. The location and size of underground structures and utilities shown hereon have been located based on a reasonable visual observation and are shown for informational purposes only. PINNACLE ENGINEERING GROUP, LLC. does not guarantee the location of utilities shown. Contact Digger's Hotline prior to the start of any activity.

NORTH

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LEGEND OF SYMBOLS & ABBREVIATIONS

SANITARY MANHOLE	FIBER OPTIC MARKER	SIGN			
STORM MANHOLE	FIBER OPTIC MANHOLE/VAULT	MAIL BOX			
STORM INLET	TELEPHONE PEDESTAL	FLAG POLE			
CLEANOUT	TELEPHONE MANHOLE/VAULT	BASKETBALL			
CATCH BASIN	TELEPHONE MARKER	HOOP BOLLARD			
LATERAL	TRANSFORMER	CROSS CUT			
UNKNOWN MANHOLE	ELECTRIC METER/PEDESTAL	IRON PIPE			
WELL	ELECTRIC MANHOLE/VAULT	IRON REBAR/ROD			
HYDRANT	CABLE TV RISER/BOX CABLE	MAG NAIL			
WATER VALVE	TV MANHOLE/VAULT	SECTION MONUMENT			
DOWN SPOUT	GAS VALVE	BENCH MARK			
SPRINKLER VALVE	GAS METER	CONIFER TREE			
WATER SHUT OFF	GAS MARKER	DECIDUOUS TREE			
STANDPIPE	AIR CONDITIONING UNIT	BUSH			
WATER MANHOLE	VENT	WETLAND SYMBOL			
FLOOD LIGHT	DIRECTIONAL ARROW	CL.	=CENTERLINE		
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TRAFFIC SIGNAL POLE	HANDICAP STALL	EL.	=ELEVATION		
UTILITY POLE	SPOT ELEVATION	EXT.	=EXISTING		
GUY WIRE		INV.	=INVERT		
SANITARY SEWER		MON.	=MONUMENT		
STORM SEWER		P.O.B.	=POINT OF BEGINNING		
WATER MAIN		P.O.C.	=POINT OF COMMENCEMENT		
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GAS MAIN		(D)	=DEEDED AS		
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PEWAUKEE STORAGE

BEING PART OF THE NE 1/4 AND NW 1/4 OF THE NW 1/4 OF SEC. 13, T7N, R19E, CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

EXISTING SITE PLAN

REVISIONS

1	DRIVEWAY	03/17/23			

PEG JOB No. 3115.00 ASZ
PEG PM 03/01/2023
DATE 1"=20'
SCALE BR
DRAFTED BY

SHEET 1 OF 5

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EXISTING SITE PLAN

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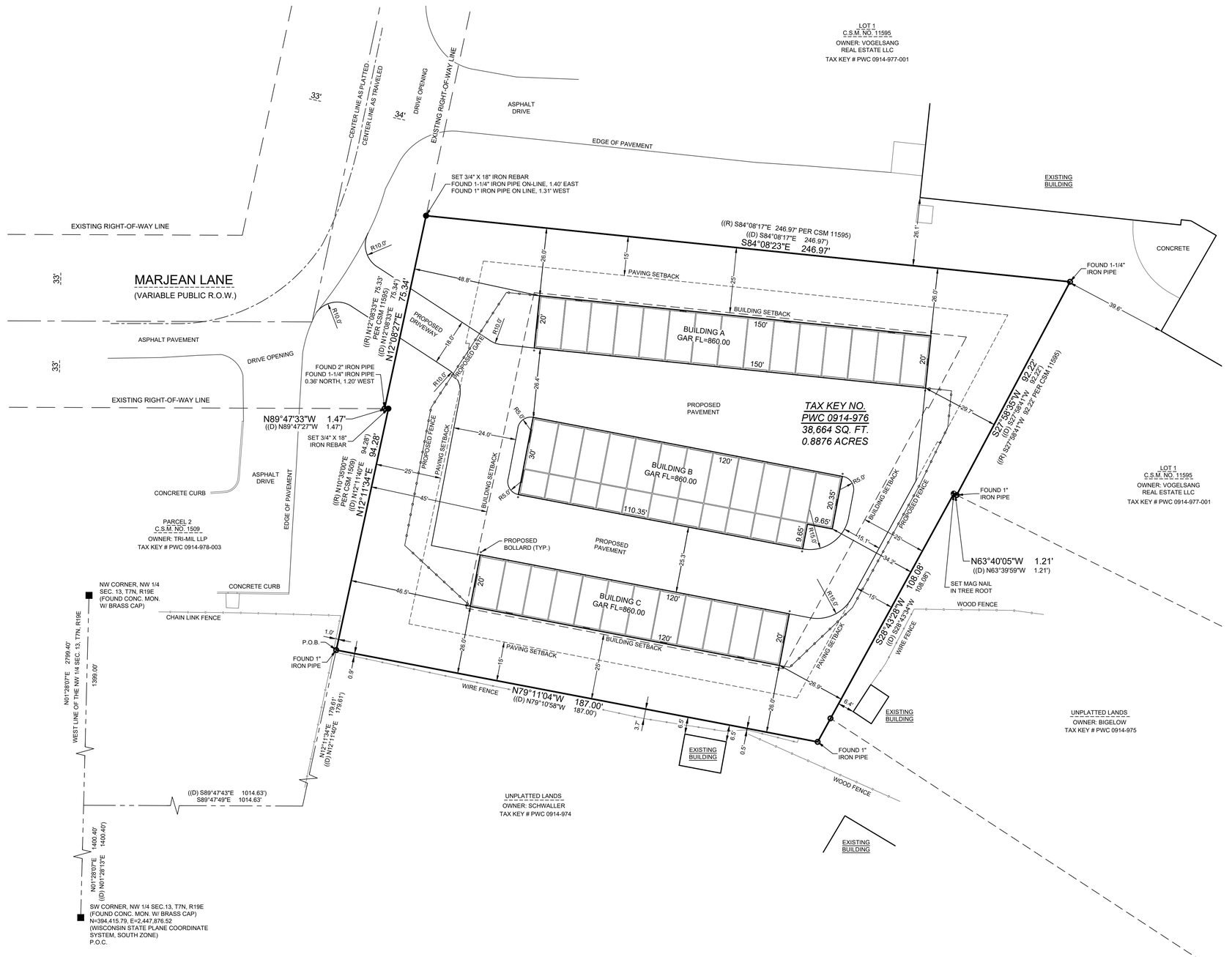
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LEGEND OF SYMBOLS & ABBREVIATIONS

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STORM MANHOLE	FIBER OPTIC MANHOLE/VAULT	MAIL BOX			
STORM INLET	TELEPHONE PEDESTAL	FLAG POLE			
CLEANOUT	TELEPHONE MANHOLE/VAULT	BASKETBALL			
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PEWAUKEE STORAGE

BEING PART OF THE NE 1/4 AND NW 1/4 OF THE NW 1/4 OF SEC. 13, T7N, R19E, CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

PROPOSED SITE PLAN

REVISIONS

1	DRIVEWAY	03/17/23					

PEG JOB No.: 3115.00
PEG PM: ASZ
DATE: 03/01/2023
SCALE: 1" = 20'
DRAFTED BY: BR

SHEET 2 OF 5

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PROPOSED SITE PLAN

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Z:\PROJECTS\2023\3115.00-WI\CAD\MASTER\3115.00 MASTER.DWG

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MARJEAN LANE

INSTALL SILT LOGS

CAUTION

16" X 20" CMPA CULVERT SW INV=854.76 NE INV=854.90

MATCH EXIST. 855.26

MATCH EXIST. 857.5

PROPOSED 50'X14'X1' THICK TRACKING PAD

MATCH EXIST. 857.2

INSTALL SILT LOGS

CAUTION

16" X 20" CMPA CULVERT W INV=855.00 E INV=854.77

BUILDING A
GAR FL=860.00

BUILDING B
GAR FL=860.00

BUILDING C
GAR FL=860.00

INSTALL SILT FENCE

PROPOSED TURF REINFORCEMENT MAT

REMOVE FENCE TO SOUTH PROPERTY LINE

REMOVE TREE (TYP.)

REMOVE FENCE TO SOUTH PROPERTY LINE

NORTH

GRAPHICAL SCALE (FEET)

0 1" = 10' 20'

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CHICAGO I MILWAUKEE : NATIONWIDE

PEWAUKEE STORAGE

BEING PART OF THE NE 1/4 AND NW 1/4 OF THE NW 1/4 OF SEC. 13, T7N, R19E, CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

GRADING & EROSION CONTROL PLAN

REVISIONS

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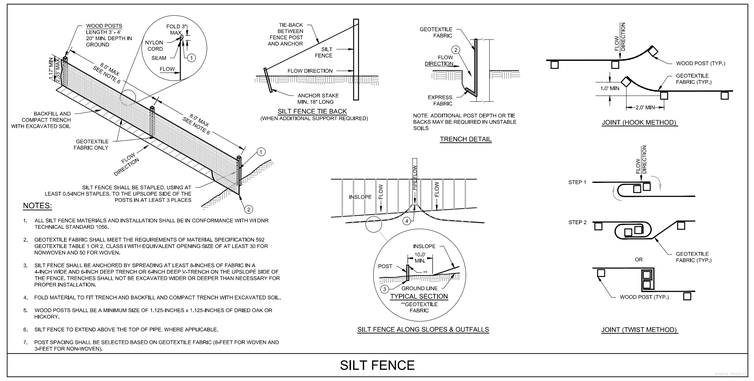
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SCALE 1"=10'
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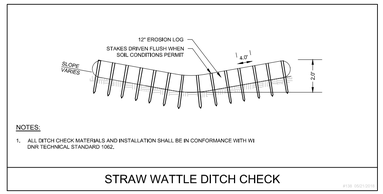
SHEET 3 of 5

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GRADING & EROSION CONTROL PLAN

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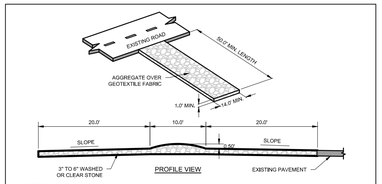
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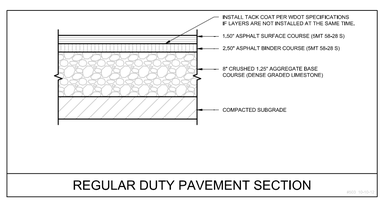
1. INSTALL TRACKING PAD, SILT FENCE AND DITCH CHECKS. CONTINUOUS INSPECTION OF EROSION CONTROL MEASURES THROUGHOUT THE PROJECT. THE GENERAL CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY, AND WITHIN 24 HOURS AFTER EVERY RAIN EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE IN A 24 HOUR PERIOD. WRITTEN DOCUMENTATION OF EACH INSPECTION SHALL BE MAINTAINED AT THE CONSTRUCTION SITE AND SHALL INCLUDE THE TIME, DATE AND LOCATION OF INSPECTION, THE PHASE OF LAND DISTURBANCE AT THE CONSTRUCTION SITE, PERSON CONDUCTING THE INSPECTION, ASSESSMENT OF CONTROL PRACTICES, AND DESCRIPTION OF ANY EROSION OR SEDIMENT CONTROL MEASURE INSTALLATION OR MAINTENANCE PERFORMED IN RESPONSE TO THE INSPECTION.
2. REMOVE TREES AND STRIP TOPSOIL.
3. ROUGH GRADE SITE AND BEGIN BUILDING CONSTRUCTION.
4. COORDINATE GAS, ELECTRIC, TELEPHONE AND CABLE INSTALLATION.
5. FINE GRADE SITE, INSTALL STONE ON PAVED AREAS.
6. INSTALL ASPHALT.
7. RESPREAD TOPSOIL, SEED, FERTILIZE AND STABILIZE DISTURBED AREAS.
8. MAINTAIN EROSION CONTROL MEASURES UNTIL THE SITE IS 80% REVEGETATED. UPON RECEIVING APPROVAL FROM THE CITY OF PEWAUKEE THE CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL MEASURES. RESTORE ANY DISTURBED AREAS DUE TO EROSION CONTROL MEASURE REMOVAL.

ESTIMATED START DATE: MAY 2023
ESTIMATED COMPLETION DATE: SEPTEMBER 2023
ESTIMATED DISTURBED AREA: 0.82 ACRES

GRADING & EROSION CONTROL NOTES:

A. ALL CONSTRUCTION PRACTICES TO COMPLY WITH THE CITY OF PEWAUKEE, WISCONSIN DNR AND THE WISCONSIN DNR TECHNICAL STANDARDS.
B. ALL AREAS SHALL BE TOPSOILED (4" THICK), SEEDED AND STABILIZED WITH EROSION MAT (WISDOT CLASS 1, TYPE B) PER WISCONSIN DNR TECHNICAL STANDARD 1052. AREAS NOTED ON GRADING PLAN SHALL BE TOPSOILED (4" THICK) SEEDED AND STABILIZED WITH TURF REINFORCEMENT MATTING NORTH AMERICAN GREEN C350 OR EQUAL PER WISCONSIN DNR TECHNICAL STANDARD 1052. TEMPORARY AND PERMANENT SEEDING SHALL MEET WISCONSIN DNR TECHNICAL STANDARD 1059.
C. TEMPORARY STABILIZATION IS REQUIRED FOR ANY AREA LEFT INACTIVE FOR MORE THAN SEVEN DAYS. TOPSOIL AND SPOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF LAYUP USING AGRICULTURAL RYE WITH A SEEDING RATE OF 3 LBS/1000 SQUARE FEET. INSTALL SILT FENCE ON THE DOWNSLOPE SIDE OF THE PILE TO REDUCE SEDIMENT RUNOFF.
D. TREES SHALL ONLY BE REMOVED TO COMPLETE THE GRADING AS SHOWN. NO OTHER TREES SHALL BE REMOVED. COORDINATE TREE REMOVAL WITH THE OWNER PRIOR TO ANY TREE REMOVAL WORK.
E. ALL CONSTRUCTION TRAFFIC IS TO ENTER/EXIT THE SITE OVER THE TRACKING PAD FROM MARJEAN LANE. THE TRACKING PAD IS PER WISCONSIN DNR TECHNICAL STANDARD 1057. ALL PRIVATE AND PUBLIC STREETS ARE TO BE KEPT CLEAN AT ALL TIMES.
F. THE PERMANENT SEED MIXTURE FOR ALL DISTURBED AREAS SHALL BE WISCONSIN DOT SEED MIXTURE NO. 40 AND SOWN AT THE RATE OF 4 LBS/1000 SQ. FT. SEED MIXTURE NO. 40 CONSISTS OF 35% KENTUCKY BLUEGRASS, 20% RED FESCUE, 20% HARD FESCUE AND 25% IMPROVED FINE PERENNIAL RYEGRASS. THE TEMPORARY SEED MIX SHALL BE WINTER WHEAT.
G. FERTILIZE SOIL WITH 10 LBS/1000 SQ. FT. OF 20-0-10 FERTILIZER.
H. ANY DEWATERING THAT MAYBE REQUIRED DUE TO CONSTRUCTION SHALL BE COMPLETED SO THAT THE WATER IS PUMPED INTO A TYPE II GEOTEXTILE BAG ON THE UPSLOPE SIDE OF THE SILT FENCE. THE GEOTEXTILE BAG SHOULD BE PLACED IN A LOCATION THAT ALLOWS THE DISCHARGED WATER TO FLOW OVER A VEGETATIVE COVER. FOLLOW WISCONSIN DNR TECHNICAL STANDARD 1061.
I. ALL BUILDING AND WASTE MATERIAL SHALL BE DISPOSED OF OFF SITE TO PREVENT RUNOFF OF MATERIAL.
J. DUST CONTROL SHOULD BE ADDRESSED PER WISCONSIN DNR TECHNICAL STANDARD 1068. AT A MINIMUM USE WATER. USE POLYMERS, TACKIFIER AND SOIL STABILIZERS IF NEEDED. INSPECT DAILY TO DETERMINE THE NEED TO IMPLEMENT A CONTROL.
K. CONCRETE TRUCKS, IF NEEDED, ARE TO BE WASHED OUT IN PAVEMENT SUB-BASE AREAS.





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WISCONSIN OFFICE:
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BROOKFIELD, WI 53186
(262) 754-8888

PEWAUKEE STORAGE

BEING PART OF THE NE 1/4 AND NW 1/4 OF THE NW 1/4 OF SEC. 13, T7N, R19E, CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

CONSTRUCTION DETAILS

REVISIONS

1	DRIVEWAY	03/17/23			

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PEG PM: ASZ
DATE: 02/15/2023
SCALE: N.T.S.
DRAFTED BY: BR

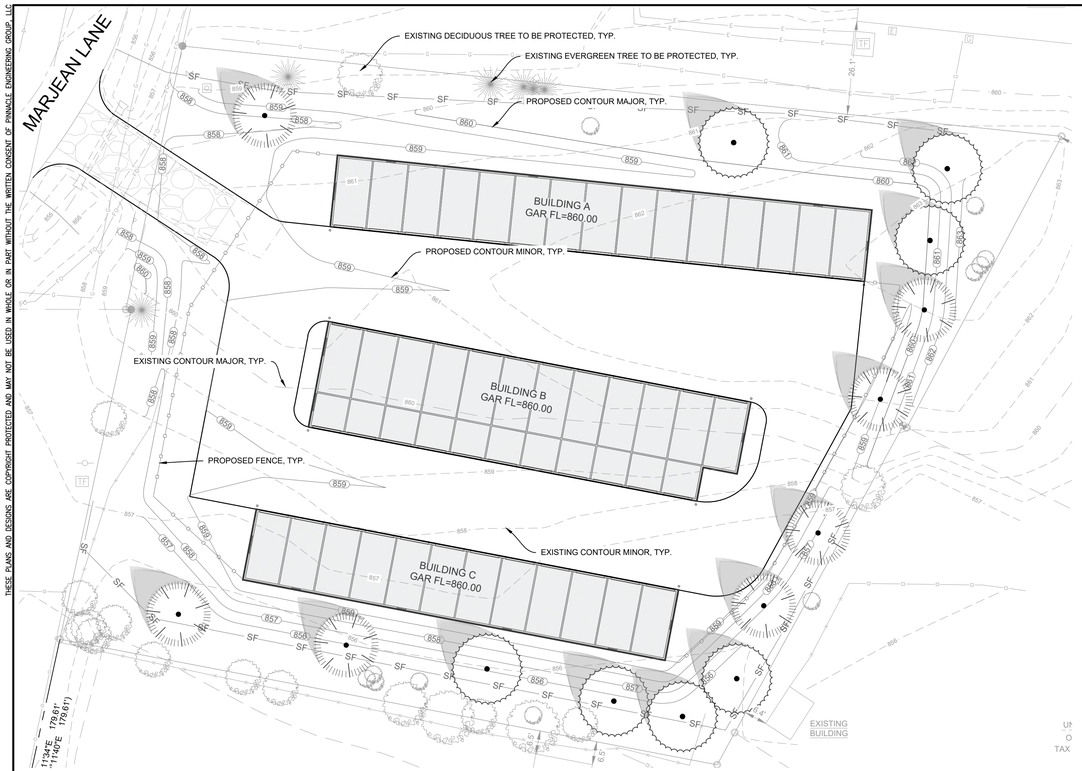
SHEET 4 of 5

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CONSTRUCTION DETAILS

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PLANT SCHEDULE

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
	7	Abies concolor	White Fir	5` Ht.	40` T x 23` W
	7	Picea omorika	Serbian Spruce	5` Ht.	55` T x 23` W

NORTH

GRAPHICAL SCALE (FEET)

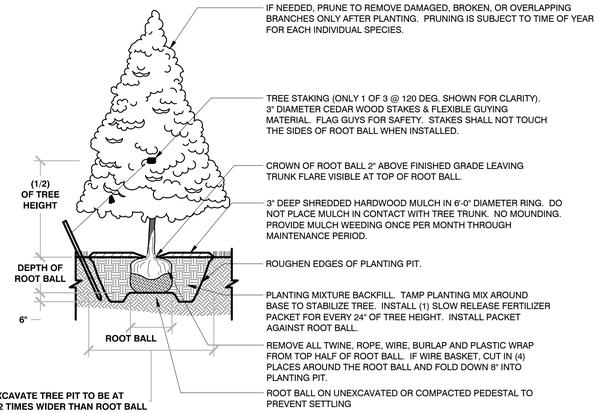
0 1" = 20' 40'

GENERAL PLANTING NOTES

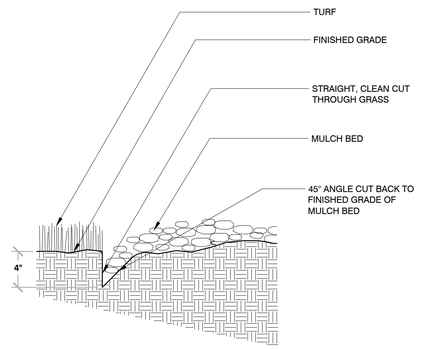
1. THE LAYOUT OF ALL INDIVIDUAL TREES SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. AN APPROVED REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY.
2. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
3. NO PLANT MATERIAL OR PLANT SIZE SUBSTITUTIONS WILL BE ACCEPTED WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT. ANY CHANGES SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION.
4. ALL BNB STOCK SHALL BE NURSERY GROWN IN A CLAY LOAM SOIL FOR A MINIMUM OF THREE GROWING SEASONS WITHIN 200 MILES OF PROJECT LOCATION, IN A ZONE COMPATIBLE WITH USDA HARDINESS ZONE 5A. SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION. EXISTING SOIL SHALL BE AMENDED PER SOIL ANALYSIS REPORT TO ENSURE A PROPER GROWING MEDIUM IS ACHIEVED.
5. ALL PLANT MATERIAL SHALL COMPLY WITH STANDARDS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK - Z60.1 ANSI. LANDSCAPE ARCHITECT OR OWNERS AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND POTENTIALLY REJECT ANY PLANT MATERIAL DEEMED TO NOT MEET THE REQUIRED STANDARDS.
6. ALL STOCK SHALL BE FREE OF DISEASES AND HARMFUL INSECTS, DAMAGE, DISORDERS AND DEFORMITIES.
7. TREES SHALL HAVE SINGLE, STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. MUTLI-STEM TREES SHALL HAVE 3-4 STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. HEIGHT-TO-CALIPER RATIOS SHALL BE CONSISTENT WITH THE LATEST EDITION OF ANSI Z60.1.
8. ROOT SYSTEMS SHALL BE LARGE ENOUGH TO ALLOW FOR FULL RECOVERY OF THE TREE, AND SHALL CONFORM TO STANDARDS AS THEY APPEAR IN THE MOST CURRENT REVISION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1.
9. BNB TREES SHALL BE DUG WITH A BALL OF SOIL, NOT SOFT BALLED OR POTTED AND SHALL BE FIRM IN THEIR ROOTBALL. ROOT BALL SHALL BE WRAPPED (WITH BIODEGRADABLE MATERIAL). THE TREE ROOT FLARE, OR COLLAR, SHALL BE AT OR WITHIN THE TOP THREE INCHES OF GRADE.
10. ALL SPRING TREES MUST BE FRESHLY DUG IN THE MOST RECENT SPRING.
11. ALL AUTUMN TREES MUST BE FRESHLY DUG IN THE MOST RECENT AUTUMN.
12. TREES SHALL BE ALIVE, HEALTHY AND APPROPRIATELY MOIST, AT TIME OF DELIVERY. TREES SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AND APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY TREES THAT DO NOT MEET THE SPECIFICATIONS OR THAT HAVE BEEN DAMAGED DURING SHIPMENT. THE LANDSCAPE INSTALLER MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY SUBSTITUTIONS OR ALTERATIONS.
13. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH PLANTING DETAILS.
14. WHILE PLANTING TREES, BACKFILL $\frac{2}{3}$ OF PLANTING HOLE AND WATER TREE THOROUGHLY BEFORE INSTALLING THE REMAINDER OF SOIL MIXTURE. AFTER ALL SOIL HAS BEEN PLACED INTO THE PLANTING HOLE WATER THOROUGHLY AGAIN.
15. THE CONTRACTOR MUST LABEL ALL TREES WITH THE COMMON AND BOTANICAL NAMES PRIOR TO FINAL INSPECTION.
16. ALL TREES PLANTED IN TURF AREAS SHALL RECEIVE A 3" DEEP SHREDDED HARDWOOD MULCHED RING AS SHOWN IN PLANTING DETAILS.
17. ALL TREE RINGS SHALL HAVE A 4" DEEP TRENCHED BED EDGE CREATED BY EITHER A FLAT LANDSCAPE SPADE OR MECHANICAL EDGER. BED EDGES ARE TO BE CUT CLEAN AND SMOOTH AS SHOWN ON LANDSCAPE PLANS WITH A CLEAN DEFINITION BETWEEN TURF AND PLANTING AREAS.
18. ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
19. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
20. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
21. TREES SHALL BE INSTALLED NO CLOSER THAN:
    - 10 FEET FROM ANY FIRE HYDRANT
    - 7 FEET FROM STORM SEWER, SANITARY SEWER LATERALS, DRIVEWAYS, AND WATER SERVICE
22. THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
23. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
24. THE CONTRACTOR IS TO REVIEW ALL SITE ENGINEERING DOCUMENTS PRIOR TO INSTALLATION. ANY CONFLICTS MUST BE REPORTED TO THE LANDSCAPE ARCHITECT. THESE LANDSCAPE DRAWINGS ARE FOR THE INSTALLATION OF PLANT MATERIALS ONLY UNLESS OTHERWISE STATED.
25. THE CONTRACTOR SHALL PROVIDE WATERING AND MAINTENANCE SERVICES FOR A PERIOD OF 60 DAYS TO ENSURE VEGETATIVE ESTABLISHMENT. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL SUPPLY THE OWNER IN WRITING WITH ONGOING WATERING AND MAINTENANCE INSTRUCTIONS.
26. PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF OWNER ACCEPTANCE. ONLY ONE REPLACEMENT PER PLANT WILL BE REQUIRED DURING THE WARRANTY PERIOD EXCEPT IN THE EVENT OF FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.
27. THE CONTRACTOR IS RESPONSIBLE TO CONDUCT A FINAL WALK THROUGH WITH THE LANDSCAPE ARCHITECT AND OR OWNERS REPRESENTATIVE TO ANSWER QUESTIONS, PROVIDE INSTRUCTIONS, AND ENSURE THAT PROJECT REQUIREMENTS HAVE BEEN MET.

SOIL PLACEMENT NOTES

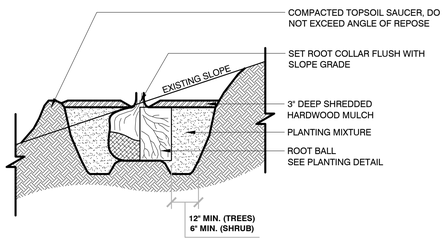
1. LOOSEN SUBGRADE TO A MINIMUM DEPTH INDICATED IN PLANTING NOTES USING A CULTI-MULCHER OR SIMILAR EQUIPMENT, AND REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION, STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER. AREAS ADJACENT TO WALKS AND PAVEMENT SHALL BE FREE OF EXCESS STONE AND PAVING MATERIALS SO AS TO PROVIDE AN UNINTERRUPTED CROSS SECTION OF SOIL.
2. TREE HOLES SHALL BE FILLED WITH A PREPARED PLANTING MIXTURE OF 1 PART TOPSOIL, 2 PARTS PLANTING SOIL MIX.
3. SPREAD SOIL AND SOIL AMENDMENTS TO DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. (FINISH GRADE OF PLANTING BEDS SHALL BE 3" BELOW ALL ADJACENT SURFACES. FINISH GRADE OF TURF SEEDING AREAS SHALL BE 1" BELOW ALL ADJACENT HARD SURFACES, WALKS, AND CURBS.)
4. PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL REQUIRED. WORK INTO TOP OF LOOSENED SUBGRADE TO CREATE A TRANSITION LAYER, THEN PLACE REMAINDER OF THE SOIL. SOIL TRANSITION LAYER SHALL BE TILLED TO A MINIMUM DEPTH OF 6" BELOW THE DEPTH OF NEWLY PLACED SOIL.
5. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
6. FINISH GRADING: GRADE SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
7. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.



1 EVERGREEN TREE PLANTING
1/4" = 1'-0" 32 9343-03



2 TRENCHED BED EDGE
3/4" = 1'-0" 3293-03



3 TREE PLANTING ON SLOPE
3/8" = 1'-0" 32 9343-02

DRAFTED: SAT
DESIGNED: SAT
REVIEWED: DJB

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PEWAUKEE STORAGE

BEING PART OF THE NE 1/4 AND NW 1/4 OF THE NW 1/4 OF SEC. 13, T7N, R19E, CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

LANDSCAPE PLAN

REVISIONS

PEG JOB No. 3115.00
PEG PM ASZ
START DATE 07/28/23
SCALE VARIES

SHEET 5 OF 5

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PEWAUKEE STORAGE
LANDSCAPE PLN

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Pewaukee Storage

Pewaukee, WI



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NO.	DESCRIPTION	DATE

INFORMATION

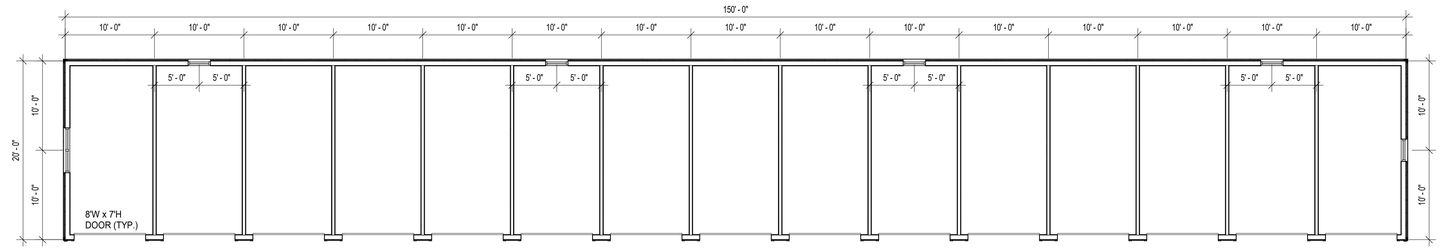
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PROJECT #:	22105
DATE:	03.02.2023
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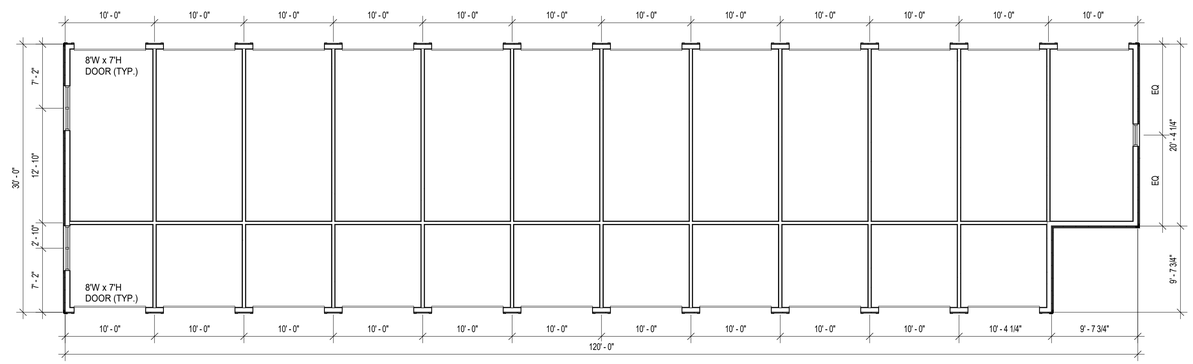
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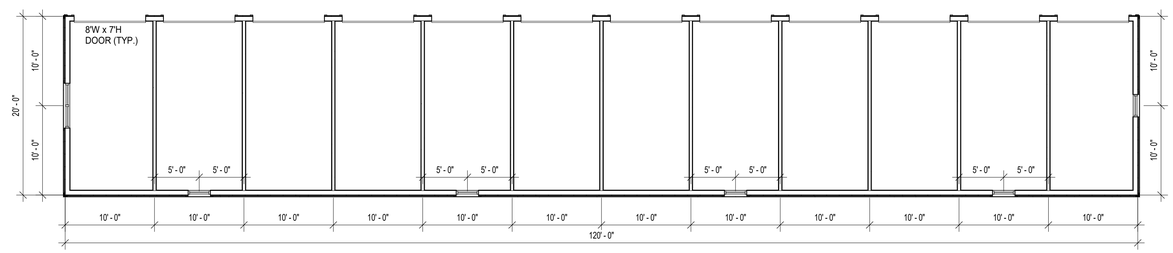
A000a



1 BUILDING A - FLOOR PLAN
1/8" = 1'-0"



2 BUILDING B - FLOOR PLAN
1/8" = 1'-0"



3 BUILDING C - FLOOR PLAN
1/8" = 1'-0"

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REVISIONS

NO.	DESCRIPTION	DATE

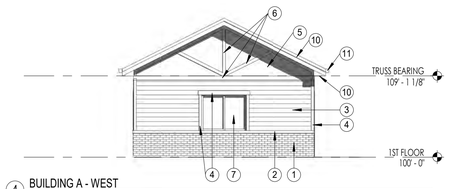
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DATE:	03.02.2023
ISSUED:	NOT FOR CONSTRUCTION

1ST FLOOR PLAN

A101



4 BUILDING A - WEST
1/8" = 1'-0"



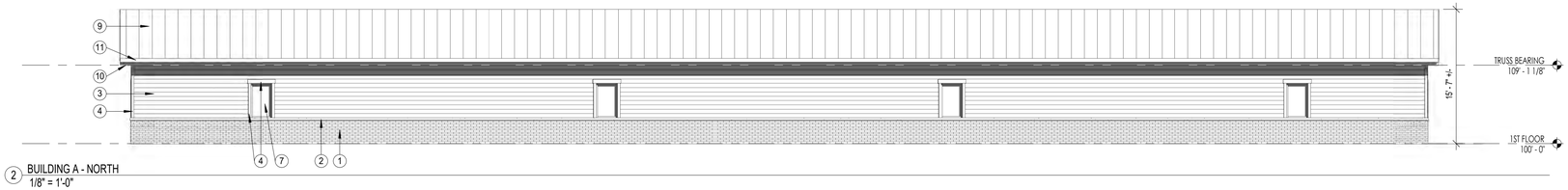
5 BUILDING A - EAST
1/8" = 1'-0"



6 BUILDING B - WEST
1/8" = 1'-0"



3 BUILDING B - NORTH
1/8" = 1'-0"



2 BUILDING A - NORTH
1/8" = 1'-0"



1 BUILDING A - SOUTH
1/8" = 1'-0"

KEYNOTES - ELEVATION

1. 'BRICK-LOOK' SIDING
2. 'STONE-LOOK' SIDING BAND
3. HORIZONTAL LAP SIDING
4. LAP SIDING TRIM BOARD
5. PANEL SIDING
6. PANEL SIDING TRIM BOARD
7. VINYL WINDOW SYSTEM
8. 8'W x 7'H PREFINISHED OVERHEAD DOOR SYSTEM
9. PREFINISHED METAL ROOFING SYSTEM
10. PREFINISHED METAL FASCIA & VENTED SOFFIT
11. PREFINISHED METAL GUTTER & DOWNSPOUT (TIE INTO UNDERGROUND STORM SYSTEM AS INDICATED ON CIVIL DRAWINGS)

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PROJECT #: 22105

DATE: 03.02.2023

ISSUED:

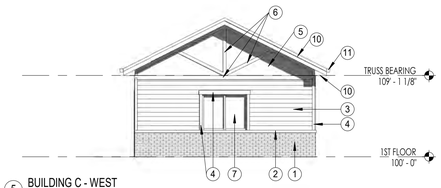
NOT FOR CONSTRUCTION

BUILDING ELEVATIONS

A401



4 BUILDING B - EAST
1/8" = 1'-0"



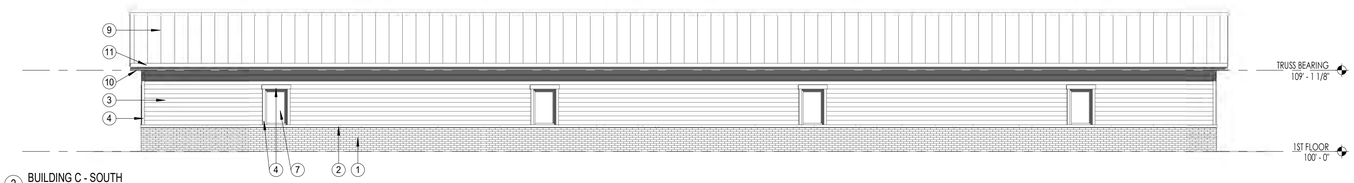
5 BUILDING C - WEST
1/8" = 1'-0"



6 BUILDING C - EAST
1/8" = 1'-0"



3 BUILDING C - NORTH
1/8" = 1'-0"



2 BUILDING C - SOUTH
1/8" = 1'-0"



1 BUILDING B - SOUTH
1/8" = 1'-0"

KEYNOTES - ELEVATION

1. 'BRICK-LOOK' SIDING
2. 'STONE-LOOK' SIDING BAND
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REVISIONS

NO.	DESCRIPTION	DATE

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PROJECT #: 22105

DATE: 03.02.2023

ISSUED:

NOT FOR CONSTRUCTION

BUILDING ELEVATIONS

A402



northwest perspective
02.17.2023

Pewaukee Storage

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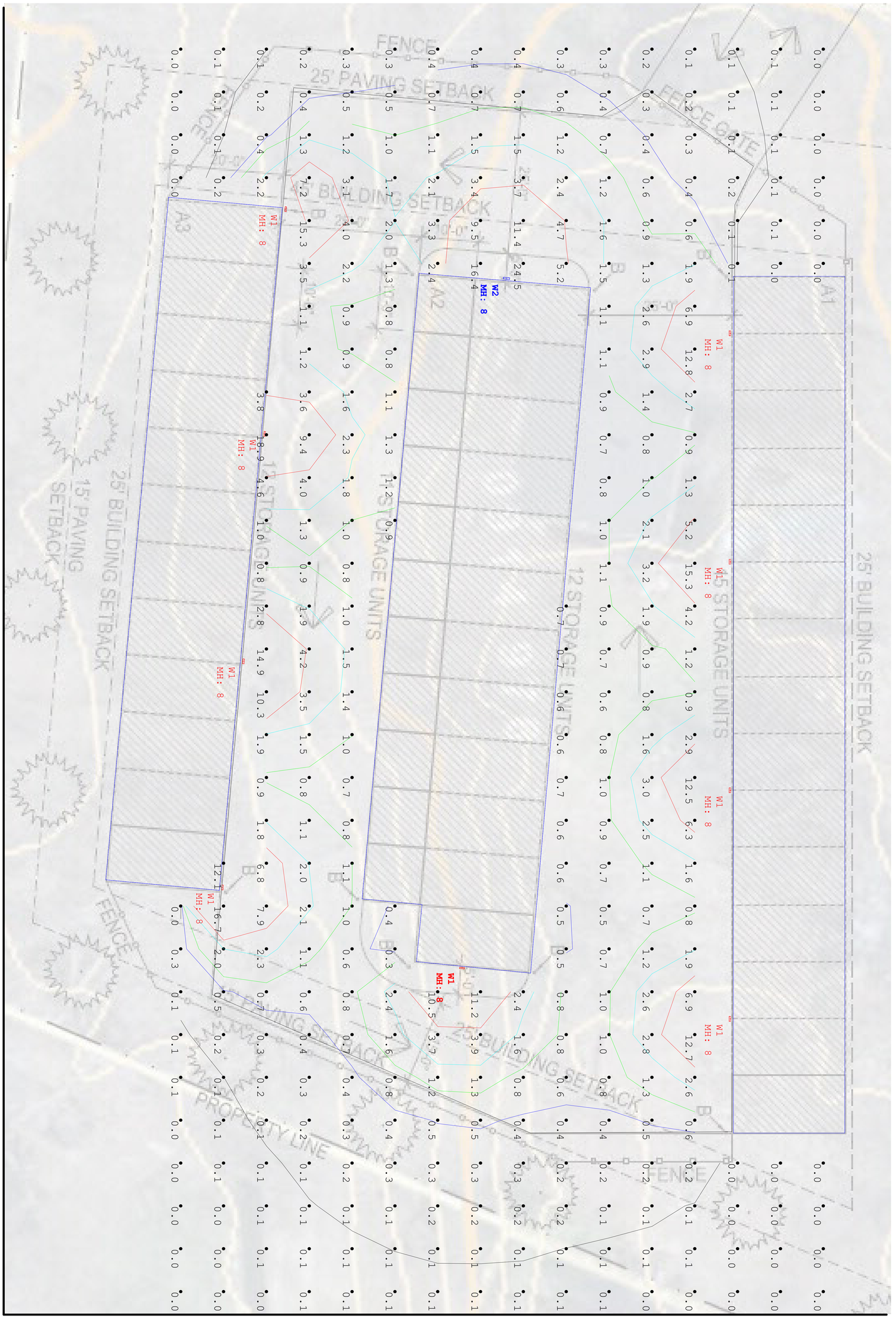
southeast perspective
02.17.2023

Pewaukee Storage



southwest perspective
02.17.2023

Pewaukee Storage



BAY Electrical Solutions

Prepared For:
BBC
Ron Outcelt

Job Name:
Regal Storage
Lighting Layout
Version B

Scale: as noted

Date:5/4/2023

Filename: BBC Regal Storage Rev1.AGI

Drawn By: Andrew Kuehn

The Lighting Analysis, eLayout, Energy Analysis and/or Visual Simulation (“Lighting Design) provided by Bay Elec represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by Bay Elec and therefore actual measured results may vary from the actual field conditions. BAY ELEC recommends that design parameters and other information be field verified to reduce variation. BAY ELEC neither warrantees, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. BAY ELEC neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by BAY ELEC. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intendedfor construction nor as being part of a project’s construction documentation package.

Filename: C:\Users\Inside Sales\Documents\Andrew\AGI32\2023\May\BBC Regal Storage Rev1.AGI

Calculation Summary											
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**	**Description**	**PtSpcLr**	**PtSpcTb**	**Meter Type**
Planar_Planar	Illuminance	Fc	1.71	24.5	0.0	N.A.	N.A.	Readings taken at ground	7.5	7.5	Normal
Lot Calcs	Illuminance	Fc	2.74	24.5	0.2	13.70	122.50	Readings taken at ground			

Luminaire Schedule											
Symbol	**Qty**	**Tag**	**Label**	**Arrangement**	**Lum. Lumens**	**Arr. Lum. Lumens**	**LLF**	**Description**	**Lum. Watts**	**Arr. Watts**	**Total Watts**
	1	W2	WP2FA60	Single	7780	7780	1.000	60w, 5000K	59.04	59.04	59.04
	9	W1	WP1FA29	Single	4010	4010	1.000	29w, 5000K	29.52	29.52	265.68

Expanded Luminaire Location Summary						
LumNo	**Tag**	**X**	**Y**	**MTG HT**	**Orient**	**Tilt**
1	W1	99	158.5	8	270	0
2	W1	139	158.5	8	270	0
3	W1	179	158.5	8	270	0
4	W1	219	158.5	8	270	0
5	W2	89.5	119.25	8	174.369	0
6	W1	210	111.5	8	354.472	0
7	W1	77.25	80.5	8	84.71	0
8	W1	116.58	76.812	8	84.71	0
9	W1	156.409	73.124	8	84.71	0
10	W1	195.989	69.436	8	84.71	0
Total Quantity: 10						



NOTES:
* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of the designer.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal Patents issued or pending apply.

The Lighting Analysis, estimate, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by Bay Elec represents an anticipated prediction of lighting system performance based on information provided by others and/or assumptions made by Bay Elec. The Lighting Design is based on information provided by others have not been field verified by Bay Elec and therefore actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of Bay Elec. Bay Elec may, but is not required to, field verify such information and other information be provided by others and may revise the Lighting Design based on its findings. Bay Elec neither warrants nor represents the appropriateness of the Lighting Design. Bay Elec neither warrants, either implied or stated,

WP1FA29



Color: Bronze

Weight: 6.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.30A
208V	0.20A
240V	0.15A
277V	0.10A
Input Watts	29.3/28.4/29.5W

LED Info

Watts	29W
Color Temp	3000K/4000K/5000K
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	4010/4204/4076 lm
Efficacy	136.7/148.2/138.1 lm/W

Technical Specifications

Field Adjustability

Field Adjustable:

Color temperature selectable by 3000K, 4000K and 5000K

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PLMZOTHA3J3K

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 125W Metal Halide

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.30A, 208V: 0.20A, 240V: 0.15A, 277V: 0.10A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

Photocell:

120-277V selectable photocell that can be turned on and off.

Construction

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 50°C (122°F)

Housing:

Die-cast aluminum

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Technical Specifications (continued)

Construction

Lens:

Tempered glass

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Note:

All values are typical (tolerance +/- 10%)

5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

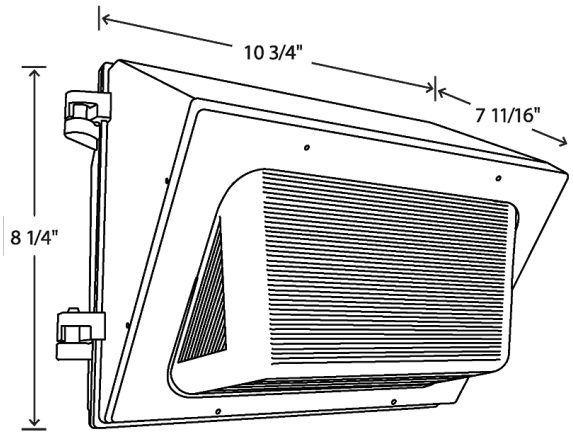
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Installation

Mounting:

Wall mount

Dimensions



Features

- DLC Premium listed
- IP65 Rated
- 100,000-Hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family	Wattage	Color Temp	Finish	Voltage/Driver	Options
WP1FA	29				
	29 = 29W	**Blank =** 3000K/4000K/5000K	**Blank =** Bronze	**Blank =** 120-277V, 0-10V Dimming	**Blank =** Selectable Photocell **/LC =** Lightcloud® Controller

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The fence will be a black aluminum. It will be 6' tall with snow gates in needed locations in case we have a bad snow year to push the snow into a grass area. It will be a similar style to the ones in the photos below.





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-23-5-1

PWC 0914976

Recording area

Name & Return Address

City of Pewaukee
W240N3065 Pewaukee Rd
Pewaukee, WI 53072

LEGAL DESCRIPTION:

PT NW1/4 & NE1/4 OF NW1/4 SEC 13 T7N R19E; COM SW CRNR OF SAID NW1/4; N01°28'13"E ALNG W LINE OF SAID NW1/4 1400.40 FT; S89°47'43"E 1014.63 FT; N12°11'40"E 179.61 FT TO BGN; N12°11'40"E 94.28 FT; N89°47'27"W 1.47 FT TO ELY LINE MARJEAN LN; N12°08'33"E ALNG ELY LINE 75.34 FT TO SLY LINE LOT 1 CSM #11595; S84°08'17"E ALNG SAID SLY LINE 246.97 FT; S27°58'41"W ALNG SLY LINE 92.22 FT; N63°39'59"W 1.21 FT; S28°43'34"W 108.08 FT; N79°10'58"W 187.00 FT TO BGN

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

Regal Development, LLC

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 May 18, 2023; has reviewed the various elements of the petitioner's 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 on June 5, 2023.

NOW, THEREFORE, let it be known that the City Common Council, by its action on June 5, 2023 has, hereby, granted a Conditional Use Permit for the following use(s):

Development of a self-storage facility.

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

1. Staff recommends that the fence be aluminum, with the possible exception of the gate as may be approved by staff, and a maximum of six feet in height.
2. The applicant provided a grading and erosion control plan that shall be subject to final approval by the Engineering Department prior to any land disturbance.

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 _____, 2023 by Steve Bierce, Mayor and Kelly Tarczewski, Clerk.

_____

(Seal) Ami Hurd
My Commission expires _____

This instrument was drafted by Ami Hurd, Deputy Clerk

DRAFT