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**PLANNING COMMISSION AGENDA**  
**Monday, October 25, 2021 at 6:00 p.m.**  
**Caledonia Village Hall – 5043 Chester Lane**

- 1. Meeting called to order**
- 2. Roll Call/Introductions**
- 3. Approval of Minutes**
- 4. Citizens' Comments**
- 5. Public Hearing Items**
  - A. **CONDITIONAL USE** - Review a request for a conditional use and building, site, and operations plan for the construction and utilization of a ±10,792 square-foot commercial retail building, Dollar General, located at 4949 Erie Street, submitted by Peter Oleszczuk, Applicant, Manveer & Chaman Real Estate Inc., Owner. (Parcel ID No. 104-04-23-28-002-000)
- 6. Non-Public Hearing Items**
  - A. **SIGN PLAN REVIEW** – Review a sign plan for the commercial site, Pilot Travel Center, located at 13712 Northwestern Avenue submitted by Michael Everett, Applicant, Pilot Travel Centers, Owner. (Parcel ID No. 104-04-22-30-022-001)
  - B. **BOUNDARY AGREEMENT REVIEW** – Review a certified survey map and rezone request from A-1, Farmland Preservation District and A-2, General Farming and Residential District II to M-2, General Industrial District for the parcel located at 3205 3 Mile Road submitted by Briohn Land Development LLC, Applicant, Anthony and Carol Janicek, Owner. (Parcel ID No. 168-04-21-36-008-000)
- 7. Adjournment**

Dated October 21, 2021

Joslyn Hoeffert  
Village Clerk

Only Commission members are expected to attend. However, attendance by all Board members (including non-members of the Plan Commission) is permitted. If additional (non-commission) Board members attend, three or more Board members may be in attendance. Section 19.82(2), Wisconsin Statutes, states as follows: If one-half or more of the members of a governmental body are present, the meeting is rebuttably presumed to be for the purposes of exercising the responsibilities, authority, power or duties delegated to or vested in the body. To the extent that three or more members of the Caledonia Village Board actually attend, this meeting may be rebuttably presumed to be a "meeting" within the meaning of Wisconsin's open meeting law. Nevertheless, only the commission's agenda will be discussed. Only commission members will vote. Board members who attend the commission meeting do so for the purpose of gathering information and possible discussion regarding the agenda. No votes or other action will be taken by the Village Board at this meeting.

**1. Meeting called to order**

President Dobbs called the meeting to order at 6:00 pm at the Village Hall, 5043 Chester Lane, Racine, WI.

**2. Roll Call/Introductions**

Members present: Joseph Minorik, Bill Folk, Nancy Pierce, Tim Just, Trustee Weatherston, and President Dobbs.

Absent: None.

Also present: Development Director Peter Wagner and Village Administrator Kathy Kasper.

**3. Approval of Minutes**

Motion by Pierce to approve the minutes from August 30, 2021. Seconded by Just. Motion carried unanimously.

**4. Citizens' Comments**

None.

**5. Public Hearing Items**

**5A. CONDITIONAL USE - Review a request for a conditional use and building, site, and operations plan for the construction and utilization of a ±10,792 square-foot commercial retail building, Dollar General, located at 4949 Erie Street, submitted by Peter Oleszczuk, Applicant, Manveer & Chaman Real Estate Inc., Owner. (Parcel ID No. 104-04-23-28-002-000)**

Motion to postpone this public hearing to the next Planning Commission meeting by Folk. Seconded by Just. Motion carried unanimously.

**6. Non-Public Hearing Items**

**6A. BUILDING, SITE & OPERATION PLAN REVEIW – Review a building, site, and operations plan for the construction and utilization of a ±4,052 square-foot training facility located at 3710 7 Mile Road, submitted by Ryan Rudie, Applicant, Wisconsin Electric Power Company, Owner. (Parcel ID No. 104-04-23-06-008-000)**

This is a 4052 square foot training facility. An existing shooting range and other training facility buildings are also located on this parcel. The location of the proposed building will be over 600 feet from the Lake Michigan edge and 200 feet from the top of the bluff. According to Wagner, all



**Plan Commission Meeting  
Monday, September 27, 2021**

setback requirements have been met. Wagner presented the site plan to the Commission. The site plan does show a demolition project on the northeast corner of the site to negate impervious surface which will be added to this development. The applicant is doing this so that a stormwater management plan does not need to be submitted to accommodate for the impervious surface.

The main exterior of the building will be constructed out of concrete masonry units. The roof will be asphalt shingles. Due to this type of facility, no windows are being proposed at this time.

No additional parking is being proposed as there is already a parking lot on the parcel. No landscaping is being proposed because this location is located on a bluff and cannot be seen from the road. The only exterior lighting that is being proposed is located on the south and west side of the building. Staff does recommend approval of this proposed development.

Motion to approve by Trustee Weatherston. Seconded by Pierce. Motion carried unanimously.

## **7. Adjournment**

Motion to adjourn by Trustee Weatherston. Seconded by Just. Motion carried unanimously.  
Meeting adjourned at 6:07 pm.

Respectfully submitted,  
Megan O'Brien  
Deputy Village Clerk



Meeting Date: October 25, 2021

Item No. **5a**

## PLAN COMMISSION REPORT

Proposal:	Conditional Use & Building, Site, & Operations (BSO) Plan Review		
Description:	Review a request for approval of a conditional use and building, site, and operation plan for the construction and utilization of a $\pm 10,792$ square-foot commercial building located at 4949 Erie Street.		
Applicant(s):	Peter Oleszczuk		
Address(es):	4949 Erie Street		
<b>Suggested Motion:</b>	<p>That the Plan Commission recommends to the Village Board that a conditional use and building, site, and operations plan for a <math>\pm 10,972</math> square-foot commercial building be approved with conditions outlined in Exhibit A for the property located at 4949 Erie Street for the following reasons:</p> <p>1. The proposed use is allowed through the conditional use and building, site, and operation plan review process and is a permitted use in B-1 Zoning District.</p>		
Owner(s):	Manveer & Chaman Real Estate Inc.		
Tax Key(s):	104-04-23-28-002-000		
Lot Size(s):	$\pm 1.878$ acres		
Current Zoning District(s):	B-1, Neighborhood Business District		
Overlay District(s):	N/A		
Wetlands:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Floodplain: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Comprehensive Plan:	Medium Density Residential		

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**Background:** At their September 7<sup>th</sup> Village Board meeting, the Village Board tabled the proposal asking for clarification regarding the traffic impact analysis (TIA) and requested a representative of Dollar General be present at their next meeting to answer questions directly. Following that meeting, staff and the Village attorney reviewed the project process and found a section of code that requires any development that generates more than 100 daily trips be a conditional use and have a public hearing. At the Board's September 20<sup>th</sup> meeting, they were informed of this requirement and referred the proposal back to the Plan Commission to conduct a public hearing.

To address the TIA concerns, staff hired a third party to analyze the submitted TIA and provide an additional assessment of the impacts from the proposed development and is included with this report. The applicant also had their consultant reanalyze their report and provide the impacts of the condominium project occurring approximately one mile north of the proposed development. Included in this packet is a TIA memo summarizing the reevaluation of the TIA and a memo from the Village's hired consultant.

The Village consultant's TIA memo suggests that the entrance on 4 Mile should be modified to include a physical barrier to prevent cars turning left onto 4 Mile. Otherwise, the level of service (LOS) as identified in the original report remains the same of a LOS C. This level of service is considered an acceptable level within the Village.

The revised TIA submitted by the applicant takes into consideration new counts with school in session and includes traffic from the Waters Edge Condo project. In short, for traffic generated in 2021, the LOS will be a C with or without the development. In the year 2041, the intersection will have a LOS D for eastbound traffic with or without the proposed development. Overall, the LOS of the intersection will be a C. Currently, the Village is without a principal engineer, so a formal analysis by staff was not conducted. A representative from the firm who conducted the TIA will be in attendance to explain the report in more detail.

In response to revisions to the TIA, the applicant has modified the site plan to address the left turn out of the site by installing an island in the middle of the 4 Mile Road entrance to direct traffic out of the site only to the east. This modification removed multiple parking stalls on the northeast end of the parking lot. To maintain the minimum required stalls, the stalls were relocated to the southeast portion of the lot.

In addition to the TIA, Racine County Engineering identified regulations regarding the width of right-of-way and access to 4 Mile Road. As a result, the applicant has modified their site plan to accommodate the 45-foot right-of-way requirement from the center line of the roadways along 4 Mile Road and Erie Street by dedicating twelve feet of their parcel along 4 Mile Road and Erie Street. This widening of the right-of-way meets the road design standards for arterial roads. A right-of-way dedication has been drafted and a quit claim deed will be recorded dedicating additional right-of-way at this intersection. As a result, the building and parking lot have been shifted south and east by twelve feet.

By dedicating the additional right-of-way, the site has shifted to the south and east. The vegetative buffer of the eastern portion of the property has been reduced from forty feet to thirty feet. The vegetative buffer on the southern portion of the property has been reduced to twenty-one feet from thirty-five feet. This reduction in buffer size is compliant with the minimum buffering requirements for commercial developments abutting residential parcels. There will be a six-foot privacy fence along the edge of the vegetative buffers to provide additional screening of the parking lot to the residential parcels. The applicant has added landscaping around the perimeter of the building along Erie Street and 4 Mile Road. In the areas identified as bio-retention swales, there will be additional plantings as identified on the landscape plan.

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Condition of approval Number 5 states that before any building permits can be issued, the property owner will need a stormwater management plan approved by the Utility Board.

Based on the existing zoning and modifications to the site in response to the TIA analysis and right-of-way dedication, staff recommends approval for the proposed development with conditions outlined in Exhibit A.

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**August 30, 2021:** The applicant is proposing to construct a ±10,972 square-foot commercial building located at 4949 Erie Street. This commercial building is intended to be used as a single tenant retail business which is a permitted use in the B-1 District.

The proposed building will have an exterior consisting primarily of a stone veneer, fiber cement shake siding, and fiber cement horizontal siding. A glass paneled entrance will be located on the northeast corner of the building. The main portion of building will have a gable rooftop and a hip roof design along the northern elevation of the building. On both the east and west elevations, there will be spandrel glass giving the appearance of windows. In addition, the installation of stone columns will help break up the long expanse of the building on these elevations. LED light fixtures will be installed on the stone columns on all four sides of the building as illustrated on the plans. On the north elevation, above the spandrel glass will be dark bronze aluminum canopies providing articulation. The south elevation is clad in similar cement fiber board shake siding and horizontal siding with stone veneer accents. This elevation is where the mechanicals will be located and screened from view. Any roof mechanicals will be required to be screened from public right-of-way. Roofing materials of the building will asphalt shingles. The varying exterior materials and design of the building meet the design standard of a visually distinct top, middle, and base.

There will be 33 parking stalls with two ADA accessible stalls near the entrance which will require a waiver from the minimum parking standards of 3.5 stalls for every 1,000 square feet of floor area. Curb stops will be utilized on the eastern portion of the parking lot. The parking lot will be paved with either concrete or asphalt.

The site layout places the building at the minimum street yard setback requirement for the zoning district. This will help distance the building from the residential homes located to the east and south of the site. The placement of the building complies with the regulations pertaining to the vision triangle for two arterial streets. Per Engineering, no modifications to the roadway are required because of this development. The entrances to the site meet minimum distance requirements from the intersection. The northern entrance will line west of the residential driveway to the north. The west entrance will line up just north of the residential driveway to the west. When a commercial development abuts a residential district, a recently adopted ordinance requires that a vegetative buffer be between the differing land uses. This site has residential abutting to the south and east lot lines. A 30-foot mature vegetative buffer is proposed along the south lot line and a 45-foot mature vegetative buffer along the east side to mitigate the change in land use. An 18'x18' dumpster will be in the southern portion of the site, away from the entrance of the facility. It will be screened by shadowbox fencing with colors matching the main building.

The lighting of the site will consist of down-cast, cutoff, LED fixtures attached to the building. No parking lot lighting is proposed as part of this development. The submitted photometric plan will need some revisions along the western elevation as some areas exceed the maximum 0.5 foot-candles at the lot line. The applicant will be required to revise the lighting plan to meet this requirement prior to building permits being issued.

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The proposed landscape plan meets the minimum requirements of Village Code. Per code trees along a street frontage need to be placed a minimum of 50 feet apart. Along the western lot line, locust, lilac, and amur maackia trees are proposed every 25-30 feet. One modification to the plan will be required. The proposed tree in the northwest corner of the site is located within the vision triangle and will need to be relocated on the site. Along the northern lot line, four trees are proposed along with shrubs around a monument sign. The eastern and southern areas of the site have a 35' and 40' vegetative buffer that will screen the parking lot. Arborvitae will be used to surround the mechanical screening and dumpster enclosure. Staff suggests additional shrubs and perennial beds abutting the building facing Erie Street be installed to provide a secondary landscape layer located behind the tree line as suggested in Village Code. This would further break up the long expanse of building.

Three bio-retention areas are proposed as illustrated on the grading plan. Prior to any building permits being issued, the applicant will need to get approvals for stormwater management, erosion control, and grading plans from Water Utility Department and Engineering Department.

The Fire Department indicated no concerns regarding the proposed site plan; however, they have identified various fire protection requirements that will need to be addressed. The Fire Department will work with the applicant to ensure compliance with fire protection and sprinkling requirements for this building type.

Staff recommends approval of the proposed development located at 4949 Erie Street subject to conditions outlined in Exhibit A. If the Plan Commission is comfortable with the proposed development, staff has drafted a suggested motion to approve the proposed development with conditions.

EXHIBIT A: Conditions of Approval for 4949 Erie Street Commercial Building

1. **Compliance.** Failure to comply with the terms and conditions stated herein could result in the issuance of citation(s) and/or revocation of this permit.
2. **Binding Effect.** These conditions bind and are applicable to the Property Owner, Agent, and any other users of the Property Owner with respect to the uses on the Property.
3. **Plans.** The proposed operation shall be located, constructed, and utilized in accordance with the revised plans and documents received by the Village Planning Office on October 18, 2021.
4. **Engineering Department.** The property owner or designated agent must contact the Village of Caledonia Engineering Department and must comply with all regulations and requirements of the Village of Caledonia Engineering Department.
5. **Stormwater.** The property owner or designated agent must contact the Village of Caledonia Stormwater Utility District regarding stormwater regulations for this site. Compliance with all regulations and requirements, as determined by the Village of Caledonia Stormwater Utility District is required. Stormwater management plans shall be submitted for approval and be in compliance with all Village requirements, as determined by the Village Engineer before permits are issued.
6. **Fire Department Approval.** Owner shall obtain approval from the Village of Caledonia Fire Department and meet applicable codes.
7. **Parking.** Parking at the site must be in compliance with the submitted plans. All employee and visitor parking must be conducted in the proposed parking lot as outlined on the submitted site plan. Each parking space shall be a minimum of 180 square feet in area exclusive of the space

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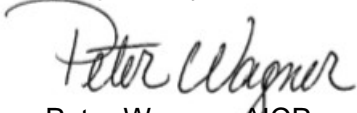
required for ingress and egress. Handicapped spaces shall be provided in accordance with State requirements. The driveway and all parking areas must be maintained in a hard-surfaced, dust-free condition.

8. **Landscaping.** Landscaping at the site must be in compliance with the submitted Landscaping Plan received on October 18, 2021. The Village may require a letter of credit or bond to be posted to ensure implementation and maintenance. Landscaping shall comply with Title 16. The landscaping plan shall follow the Village of Caledonia planting requirements. Landscaping shall be maintained in a living condition and any landscaping that dies or is otherwise removed shall be immediately replaced.
9. **Lighting.** The lighting plan must be in compliance with the submitted lighting plan October 14, 2021. All lighting at the site must be full cut-off lights that may not glare onto abutting properties or onto any public roadway. Following installation, owner shall contact Village for an inspection to ensure that lighting was properly installed.
10. **Signage.** Prior to installation of any signs, a sign permit will be required prior to installation and meet all sign regulations in Title 16. Internally lit cabinet wall signs, banners, balloons, flashing, or animated signs are prohibited.
11. **No Accumulation of Refuse and Debris.** Any fence, wall, hedge, yard, space, or landscaped area must be kept free of any accumulation of refuse or debris. Plant materials must be kept in a healthy growing condition and structures must be maintained in a sound manner.
12. **Performance Standards.** The applicant must comply with the provisions of Article VII, Division 4, Performance Standards of Chapter 20, Zoning, Racine County Code of Ordinances, as adopted by the Village of Caledonia.
13. **Property Maintenance Required.** A complete and thorough maintenance program must be established to insure attractiveness. The continued positive appearance of buildings and property is dependent upon proper maintenance attitudes and procedures. Maintenance programs must be established that include watering, maintaining, and pruning all landscape planting areas including removal and replacement of dead or diseased landscaping; cleaning up litter; sweeping, cleaning, and repairing paved surfaces; and cleaning, painting, and repairing windows and building façade.
14. **Outdoor Display of Merchandise.** Outdoor storage will be limited to one ice chest box. The display of merchandise outdoors is prohibited. Such items shall include but not limited to propane exchange, firewood, general merchandise, redbox, and other retail goods.
15. **Expiration.** This approval will expire twelve (12) months from the date of the Village's final approval unless substantial work has commenced following such grant. If this office determines that no substantial work has commenced, the development will be required to resubmit their application and go through the conditional use process.
16. **Access.** The applicant must allow any Village employee full and unlimited access to the project site at a reasonable time to investigate the project's construction, operation, or maintenance.
17. **Compliance with Law.** The applicant is responsible for obtaining all necessary federal, state, and local permits, approvals, and licenses. The applicant is required to comply with all applicable local, state, and federal regulations, including Titles 14, 16 and 18 of the Village of Caledonia Code of Ordinances.

18. **Reimburse Village Costs.** Applicant shall reimburse to the Village all costs incurred by the Village for review of this conditional use including but not limited to engineering, legal and planning review that occurred prior to permit issuance and during the implementation of the plans and construction of the improvements.
19. **Amendments to Building, Site & Operations Plan.** No additions, deletions, or changes may be made to the project, site plan, or these conditions without the Village of Caledonia's prior approval. All addition, deletion, and/or change requests must be submitted to the Village of Caledonia in writing. A minor change to the conditions of this permit, as deemed by the Village Development Director, may be made at a staff level, if authorized by the Village Development Director.
20. **Caledonia Utility District.** The property owner or designated agent must contact the Caledonia Utility District regarding Utility District regulations for this site. Compliance with all regulations and requirements, as determined by the Caledonia Utility District is required.
21. **Site Plan and Title 16 Review.** The final site plan and site design and architectural details required under Title 16 of the Village's Code of Ordinances shall be reviewed and approved for compliance by the Village Development Director.
22. **Agreement.** You are accepting the conditions of approval and the beginning the project means that you have read, understand, and agree to follow all conditions of this approval. Therefore, Peter Oleszczuk, Midwest WI LLC, Manveer & Chaman Real Estate Inc., and their heirs, successors, and assigns, including tenants, are responsible for full compliance with the above conditions.
23. **Subsequent Owners.** It is the property owner's responsibility to inform any subsequent owner or operator of these conditions.

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Respectfully submitted:

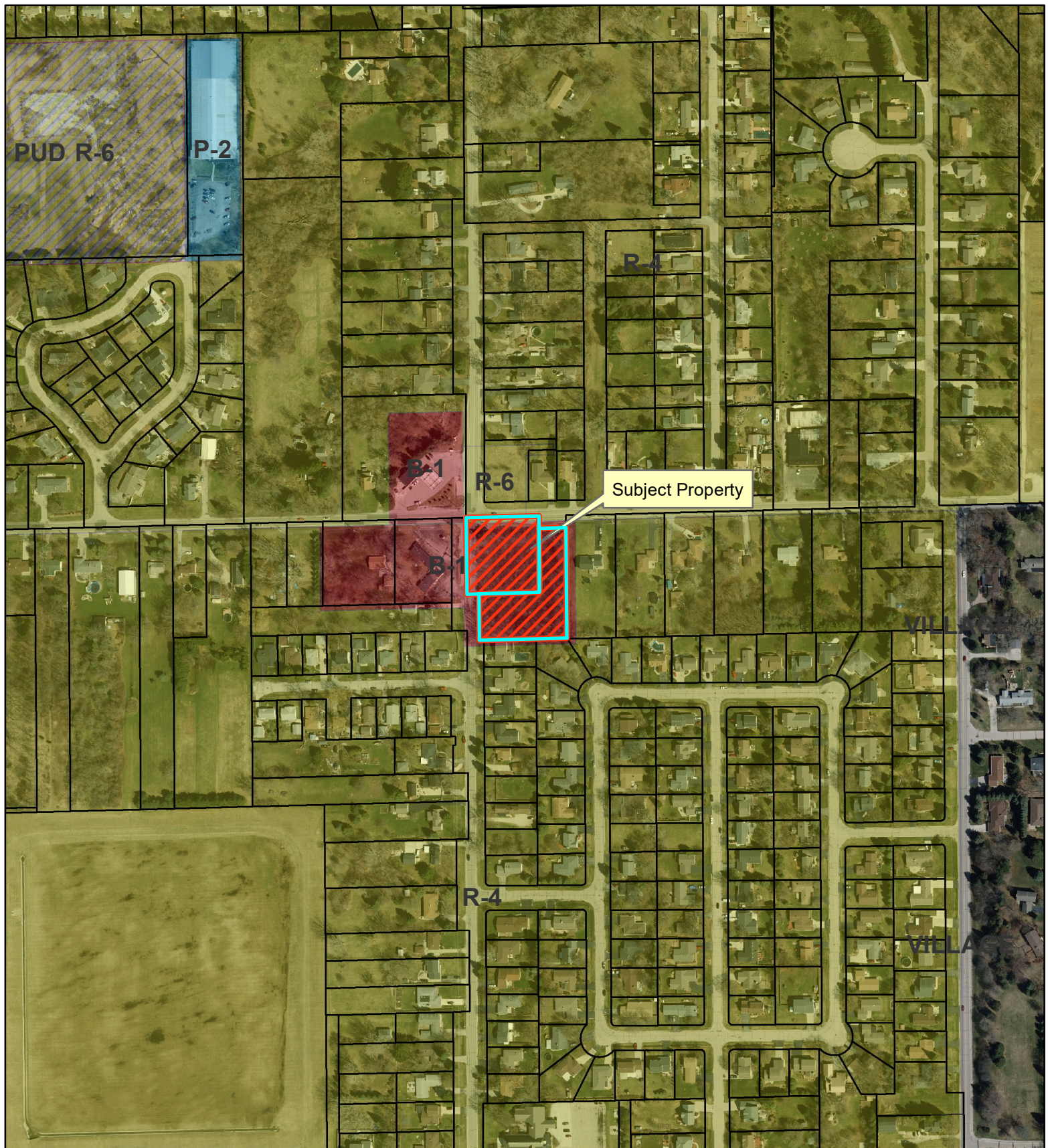


Peter Wagner, AICP  
Development Director



# Location Map

## 4949 Erie Street







1435 Fulton, 2<sup>nd</sup> Floor / Grand Haven, Michigan 49414

November 23, 2021

Peter Wagner  
Village of Caledonia  
5043 Chester Lane  
Racine, WI 53402

**RE: Dollar General - 4949 Erie Street Location Rationale**

Mr. Wagner,

I am writing this letter to address the concerns of the public regarding the need for a mid-sized general retailer at the above-referenced location. Per the most recent census data, there is a population of 6,882 within approximately 3 square miles of the proposed development. Besides the Casey's gas station, Rice's 4 Mile Liquor and MJ Petroleum, there are currently no general retailers or grocers available to consumers within this area. Due to the success of the existing surrounding stores, Dollar General has identified a clear demand for a new store at this location. The nearest Dollar General is located 2.5 miles southwest at 3440 Douglas Avenue in Racine, Wisconsin, and currently provides customers with non-perishable foodstuffs, frozen and refrigerated grocery items, household products, beauty/personal care items, apparel and over-the-counter medications. The proposed Dollar General will provide all those items plus expanded refrigerated and frozen groceries and additional square footage to accommodate fresh produce items and prescription medications in the future. The store will provide for the local public's daily needs at an affordable price. As the preferred developer, we are planning on investing \$1,760,000 to develop a new Dollar General on this vacant land that will provide jobs for 6-8 people. Along with this letter, I have included some photos of a similar wood prototype store as reference for future discussion.

Sincerely,

A handwritten signature in blue ink, appearing to read "Scott Knowlton", with a long, sweeping horizontal line extending to the right.

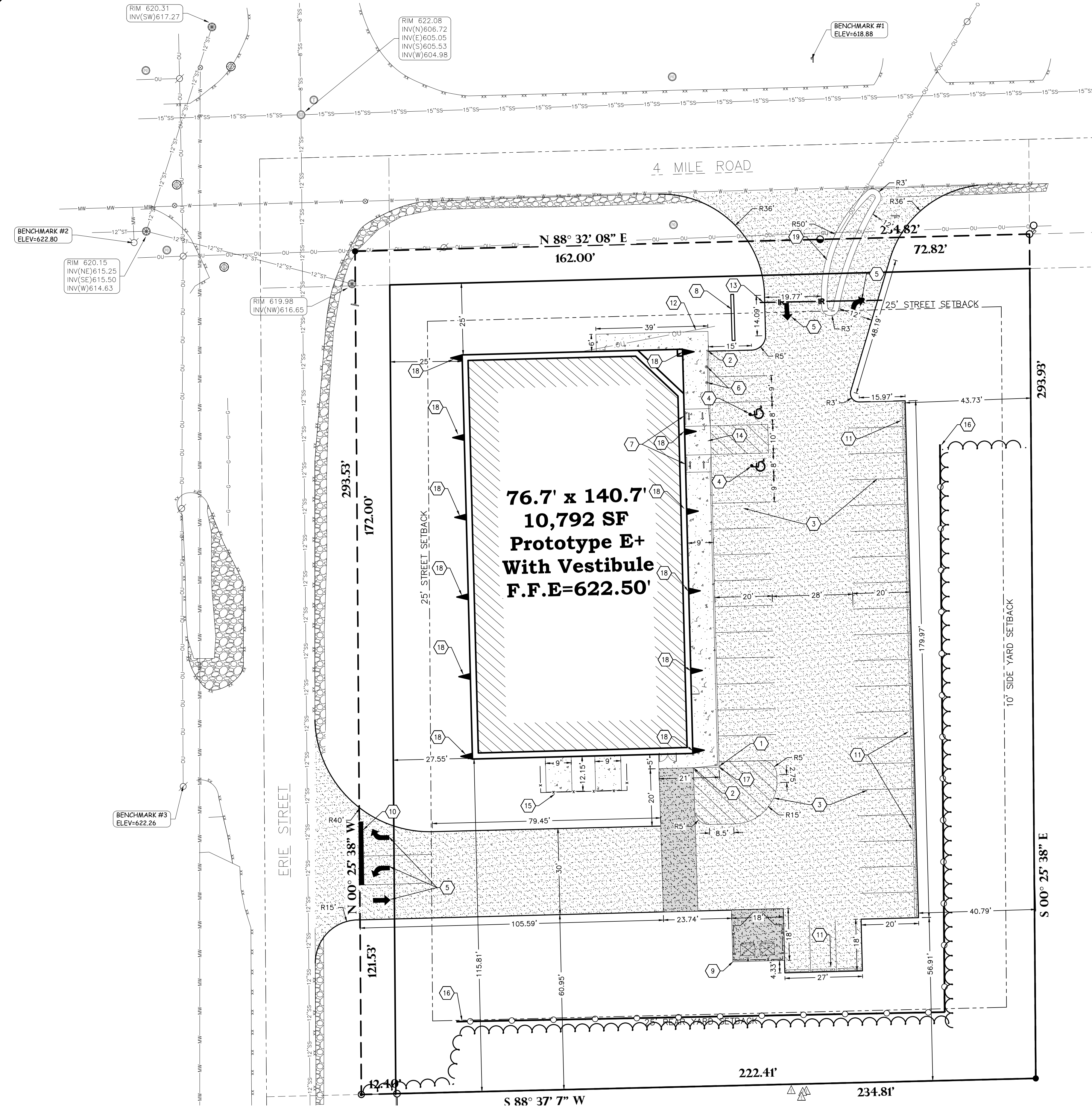
Scott Knowlton  
Midwest WI, LLC  
VP – General Counsel











### BENCHMARK:

ELEVATIONS ARE REFERENCED TO NGVD 29 DATUM.

**BENCHMARK #1**  
609 NAIL ON SOUTH SIDE OF SIGN  
LOCATED ON THE NORTH SIDE OF 4 MILE ROAD NORTH OF  
THE SUBJECT PROPERTY.  
ELEVATION = 618.88

**BENCHMARK #2**  
ARROW BOLT ON HYDRANT  
LOCATED AT THE SOUTHWEST QUADRANT OF THE  
INTERSECTION OF 4 MILE ROAD AND ERIE STREET.  
ELEVATION = 622.80

**BENCHMARK #3**  
609 NAIL ON NORTHEAST SIDE OF POWER POLE  
LOCATED ON THE WEST SIDE OF ERIE STREET WEST OF THE  
SUBJECT PROPERTY.  
ELEVATION = 622.26

### UTILITY DISCLAIMER:

THE LOCATIONS, SIZES, AND TYPES OF UNDERGROUND PUBLIC AND PRIVATE UTILITIES OR SUBSTRUCTURES SHOWN HEREON WERE OBTAINED FROM VISUAL INSPECTION, FIELD MEASUREMENTS, AND/OR AS-BUILT PLANS. SANITARY SEWER AND STORM SEWER PIPE SIZES, INVERTS, DIRECTION, AND LOCATIONS BETWEEN MANHOLES ARE SUPPLEMENTED BY AS-BUILT PLANS AND/OR ESTIMATED BASED ON FIELD OBSERVATIONS. PRIOR TO CONSTRUCTION IN THE VICINITY OF ANY UTILITIES SHOWN HEREON, IT IS RECOMMENDED THAT THE LOCATIONS, DEPTHS, AND SIZES BE FIELD VERIFIED. THE LOCATIONS SHOWN HEREON ARE ONLY APPROXIMATE, WITH POSSIBILITY THAT ADDITIONAL UTILITY LINES NOT DISCOVERED, OR MARKED, DURING THE SEARCH OF RECORDS AND THE FIELD SURVEY MAY EXIST. ANY CONTRACTOR USING THE INFORMATION SHOWN HEREON IS HEREBY FOREWARNED THAT ANY EXCAVATION UPON THIS SITE MAY RESULT IN THE DISCOVERY OF ADDITIONAL UNDERGROUND UTILITIES NOT SHOWN HEREON. IN GENERAL, UNDERGROUND UTILITY LOCATIONS ARE SHOWN FROM UTILITY MARKINGS, BY OTHERS, AND/OR AS-BUILT PLANS, PROVIDED BY OTHERS. POINT OF BEGINNING MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE EXISTING UTILITIES SHOWN HEREON, AND BELIEVES THAT THE INFORMATION CONTAINED HEREIN IS RELIABLE AND GENERALLY ACCURATE FOR THE PURPOSE INTENDED.

### GENERAL NOTES:

- CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- GRADE, LINE, AND LEVEL TO BE REVIEWED IN THE FIELD BY THE CONSTRUCTION MANAGER.
- ALL REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH LOCAL MUNICIPAL AND DEPARTMENT OF NATURAL RESOURCES REGULATIONS.
- SEE SHEET C4.0 FOR ALL REQUIRED EROSION CONTROL ELEMENTS.
- ANY EXISTING UTILITIES NOT SHOWN ON THIS DOCUMENT WHICH NEED TO BE REMOVED, RELOCATED AND OR ADJUSTED SHALL BE THE RESPONSIBILITY OF THE SITE GRADING CONTRACTOR AND INCLUDED IN THE BASE BID CONTRACT.
- VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- BIDDERS SHALL VISIT THE SITE AND REVIEW EXISTING CONDITIONS PRIOR TO THE BID DATE.
- PRIOR TO STARTING WORK, VERIFY WITH THE LOCAL AUTHORITIES THAT ALL REQUIRED PERMITS HAVE BEEN ACQUIRED.
- COORDINATE CONSTRUCTION IN THE RIGHT OF WAY WITH THE LOCAL AUTHORITIES.
- PROVIDE PROPER BARRICADES, SIGNS, AND TRAFFIC CONTROL TO MAINTAIN THRU TRAFFIC ALONG ADJACENT STREETS IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS.
- SIDEWALK JOINTS SHALL BE INSTALLED AS INDICATED OR AS APPROVED BY THE CONSTRUCTION MANAGER.
- ALL GENERAL LANDSCAPE AREAS SHALL BE SEEDED, FERTILIZED, AND CRIMP HAY MULCHED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

### KEYNOTES:

- THICKENED EDGE WALK
- END OF THICKENED EDGE WALK
- PARKING LOT STRIPING
- ADA PARKING STALL
- DIRECTIONAL ARROW
- CONCRETE BOLLARD
- ADA PARKING SIGN
- LIGHTED PYLON SIGN  
W/ UNDERGROUND ELECTRIC  
(SEE ELECTRICAL PLANS)
- 18'x18' DUMPSTER PAD  
W/ SHADOW BOX FENCING
- 18" STOP BAR
- 8' PARKING STOPS
- APPROXIMATE LOCATION OF 1" SLEEVE  
FOR PYLON SIGN POWER CONDUIT  
(VERIFY FINAL LOCATION WITH BLDG  
ELECTRICAL DESIGNER/CONTRACTOR)
- APPROXIMATE LOCATION OF 2" SLEEVE FOR  
IRRIGATION LINE, VERIFY FINAL LOCATION  
WITH IRRIGATION DESIGNER/CONTRACTOR
- ADA RAMP
- HVAC AREA W/ SHADOW BOX FENCING  
(SEE MECHANICAL PLANS FOR UNIT  
INFORMATION AND CONCRETE PAD DESIGN)
- 8' HIGH PRIVACY FENCE  
(STYLE AS APPROVED BY OWNER)
- WARP CONCRETE CURBING TO  
LOADING PAD
- 8" ROOF DRAIN  
(SEE ARCHITECTURAL DRAWING)
- CONCRETE ISLAND W/ ROLL CURB

### PAVEMENT HATCH PATTERNS:

- BASE BID - 6" CONCRETE PAVEMENT  
ALTERNATE BID - 4" ASPHALT PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- 6" CONCRETE PAVEMENT

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REVISIONS

CHECKED: JUL  
DRAWN: JUL  
DATE 10/11/2021  
PROJECT NO. 21.028

LAYOUT PLAN

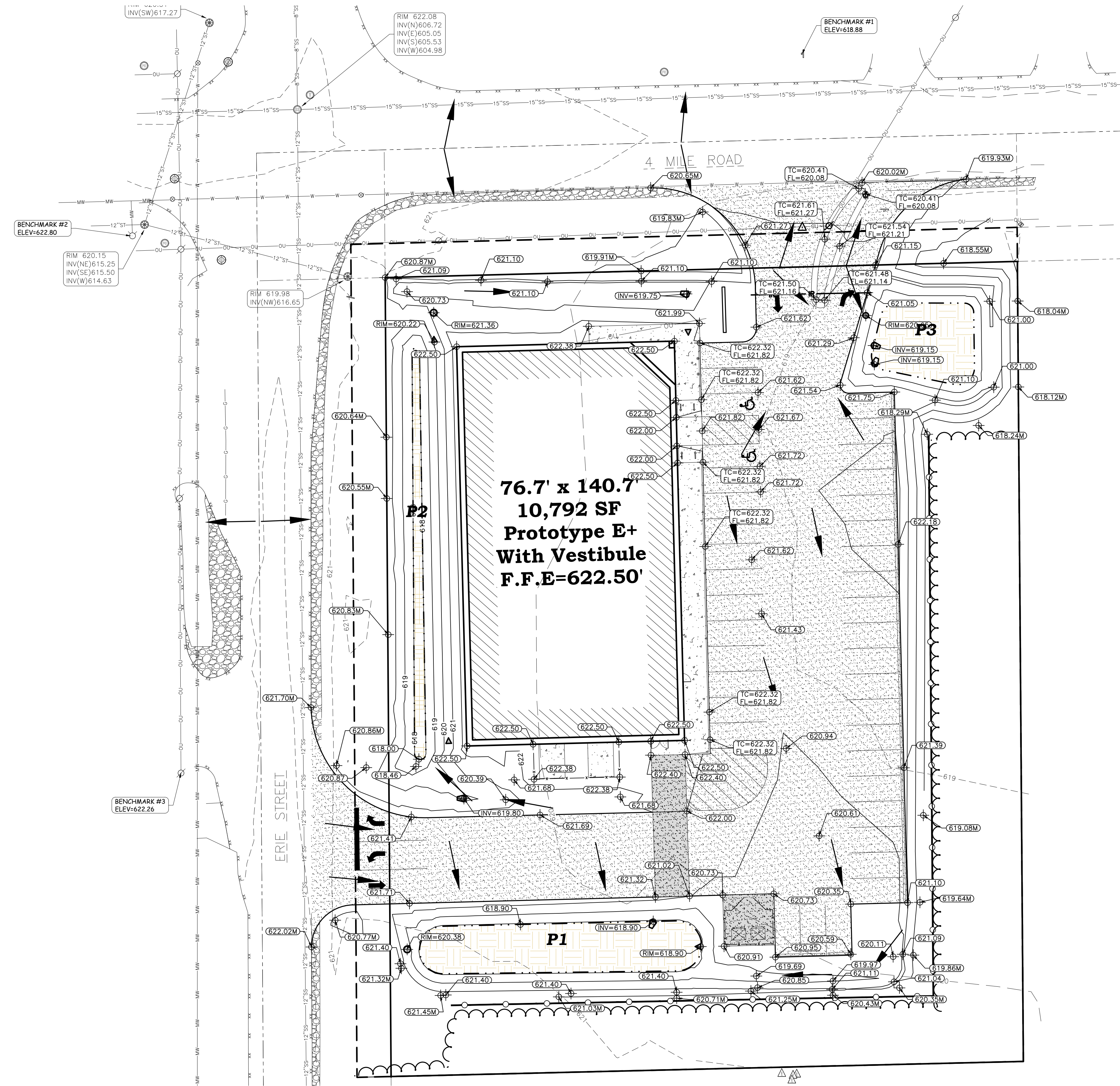
MIDWEST WI, LLC  
DOLLAR GENERAL  
VILLAGE OF CALEDONIA  
RACINE CO, WISCONSIN

Civil Engineering  
Land Surveying  
Landscape Architecture  
4941 Kirchling Court  
Stevens Point, WI 54481  
715.344.9999 (PH) 715.344.9922 (FX)

Point of Beginning

SHEET  
C2.0





### BENCHMARK:

ELEVATIONS ARE REFERENCED TO NGVD 29 DATUM.

**BENCHMARK #1**  
609 NAIL ON SOUTH SIDE OF SIGN  
LOCATED ON THE NORTH SIDE OF 4 MILE ROAD NORTH OF  
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ELEVATION = 618.88

**BENCHMARK #2**  
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LOCATED AT THE SOUTHWEST QUADRANT OF THE  
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ELEVATION = 622.26

### UTILITY DISCLAIMER:

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### GENERAL NOTES:

- CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- THE PROPOSED SITE PLAN FINISH FLOOR ELEVATION OF 622.50' EQUALS THE PROPOSED BUILDING ARCHITECTURAL FINISH FLOOR ELEVATION OF 100.00'.
- GRADE, LINE, AND LEVEL SHALL BE REVIEWED IN THE FIELD BY THE CONSTRUCTION MANAGER.
- INSTALL AND MAINTAIN ALL REQUIRED EROSION CONTROL MEASURES IN ACCORDANCE WITH LOCAL MUNICIPAL AND DEPARTMENT OF NATURAL RESOURCES REGULATIONS.
- 6" OF TOPSOIL SHALL BE PROVIDED IN ALL GENERAL LAWN AREAS AND 12" SHALL BE PROVIDED IN ALL PLANTING BED AREAS.
- SEE SHEET C4.0 FOR ALL REQUIRED EROSION CONTROL ELEMENTS.
- ANY EXISTING UTILITIES NOT SHOWN ON THIS DOCUMENT WHICH NEED TO BE REMOVED, RELOCATED, AND/OR ADJUSTED SHALL BE THE RESPONSIBILITY OF THE SITE GRADING CONTRACTOR AND INCLUDED IN THE BASE BID CONTRACT.
- COORDINATE ALL EARTHWORK ACTIVITIES WITH THE RESPECTIVE TRADES RESPONSIBLE FOR THE INSTALLATION OF GAS, CABLE, TELEPHONE AND ELECTRICAL (INCLUDING MAIN SERVICE, SITE LIGHTING, CONDUITS AND SIGNAGE).
- PROVIDE RIP RAP AT ALL CULVERT ENDWALL STRUCTURES TO PREVENT WASHOUT AND EROSION.
- INSTALL WISDOT TYPE HR FILTER FABRIC BENEATH UNDER RIP RAP.
- EXCESS TOPSOIL SHALL BE REMOVED FROM SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER. COORDINATE WITH OWNER FOR LOCATION OF STOCKPILE IF THE OWNER CHOOSES TO SALVAGE EXCESS TOPSOIL FOR FUTURE USE. SILT FENCE SHALL BE PLACED AROUND STOCKPILE.
- THE ENGINEERED SOIL SHALL NOT BE PLACED IN THE BIORETENTION AREAS UNTIL THE SURROUNDING DRAINAGE AREA HAS BEEN FULLY STABILIZED. ALL CONSTRUCTION SITE SEDIMENT SHALL BE REMOVED FROM THE SUBGRADE OF THE BIORETENTION AREA PRIOR TO PLACEMENT OF THE ENGINEERED SOIL.
- ALL TESTING AND INSPECTION SHALL BE DONE IN ACCORDANCE WITH SPS 382.21.
- THE LOCAL MUNICIPALITY SHALL BE CONTACTED PRIOR TO ANY EXCAVATION IN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL HAVE HIS TRAFFIC CONTROL PLAN APPROVED PRIOR TO WORK COMMENCING.
- THE LOCAL MUNICIPALITY SHALL OPERATE ALL EXISTING WATER VALVES IF NEEDED.
- GRADES AT BUILDING EDGE SHALL BE 6" BELOW FINISHED FLOOR ELEVATION EXCEPT AT DOOR WAY ENTRANCES OR UNLESS OTHERWISE NOTED.

### GRADING LEGEND:

|                                                    |            |     |                |
|----------------------------------------------------|------------|-----|----------------|
| EXISTING CONTOUR                                   | ---        | 712 | ---            |
| PROPOSED CONTOUR                                   | ---        | 712 | ---            |
| PROPOSED SPOT ELEVATION                            | 622.20     | +   |                |
| PROPOSED ENDWALL INVERT ELEVATION                  | INV=622.05 | +   |                |
| PROPOSED RIM ELEVATION                             | RIM=622.50 | +   |                |
| PROPOSED TOP OF CURB ELEVATION                     | TC=622.50  | +   |                |
| PROPOSED FLOW LINE ELEVATION                       | FL=622.50  | +   |                |
| PROPOSED MATCH ELEVATION<br>(CONTRACTOR TO VERIFY) | 622.05M    | +   |                |
| PROPOSED ENDWALL STRUCTURE<br>WITH RIP RAP         |            | ←   | 6 C6.1         |
| PROPOSED STORM SEWER MANHOLE                       |            | ←   | 7 C6.1         |
| PROPOSED ROOF DRAIN                                |            | ←   | 7 C6.1         |
| PROPOSED STORM SEWER INLET                         |            | ←   | 7 C6.1         |
| PROPOSED BIO-RETENTION BASIN                       |            | ←   | 11 C6.0 8 C6.1 |
| PROPOSED INFILTRATION BASIN                        |            | ←   | 9 C6.1         |
| FLOW ARROW                                         |            | ←   |                |

### NOTES ON BIO-RETENTION AREAS

#### NOTES:

- ENGINEERED SOIL SHALL NOT BE INSTALLED UNTIL GRADING IS COMPLETE AND DISTURBED GROUND HAS BEEN TEMPORARILY STABILIZED TO PREVENT CLOGGING.
- DO NOT ADD ENGINEERED MEDIA UNTIL SITE PAVING HAS OCCURRED AND TURF AREAS HAVE BEEN ESTABLISHED WITH VEGETATION.
- ENGINEERED MEDIA TO BE INSTALLED WITH NO MECHANICAL COMPACTION (INCLUDING EQUIPMENT TRACKING).
- ENGINEERED MEDIA TO BE INSTALLED IN 6 INCH LIFTS AND SPRINKLER WATERED (TO SIMULATE RAINFALL) AT EACH LIFT TO ACHIEVE SETTLEMENT. ALTERNATELY, ENGINEERED MEDIA MAY BE PLACED IN 6 INCH LIFTS WITHOUT WATERING AND FINISHED GRADE PLACED 3 INCHES ABOVE THE PLAN ELEVATION TO ACCOUNT FOR EXPECTED SETTLEMENT DURING INITIAL RAINFALLS.

ENGINEERED SOIL COMPOSITION—The soil shall be engineered to the following specifications:

- The planting mixture shall consist of a mixture of 70 to 85% sand and 15 to 30% compost. The percentages are based on volume. Special attention should be given to plant selection when the percentage of sand exceeds 75%. Note: This mixture meets the equivalent level of protection as determined by DNR.
- The sand shall meet one of the following gradation requirements:
  - USDA Coarse Sand (102 - .04 inches)
  - ASTM C33 (Fine Aggregate Concrete Sand)
  - Wisconsin Standards and Specifications for Highway and Structure Construction, Section 501.2.5.3.4, (Fine Aggregate Concrete Sand) 2005 edition, or an equivalent as approved by the administering authority. The preferred sand component consists of mostly SiO<sub>2</sub>, but sand consisting of dolomite or calcium carbonate may also be used. Manufactured sand or stone dust is not allowed. The sand shall be washed and drained to remove clay and silt particles prior to mixing.
- The compost component shall meet the requirements of Wisconsin Department of Natural Resources Specification S100, Compost.
- The engineered soil mix shall be free of rocks, stumps, roots, brush or other material over 1 inch in diameter. No other materials shall be mixed with the planting soil that may be harmful to plant growth or prove a hindrance to planting or maintenance.
- The engineered soil mix shall have a pH between 5.5 and 6.5.
- The engineered soil mix shall have adequate nutrient content to meet plant growth requirements.

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| PROJECT NO. | 21.028     |

GRADING PLAN

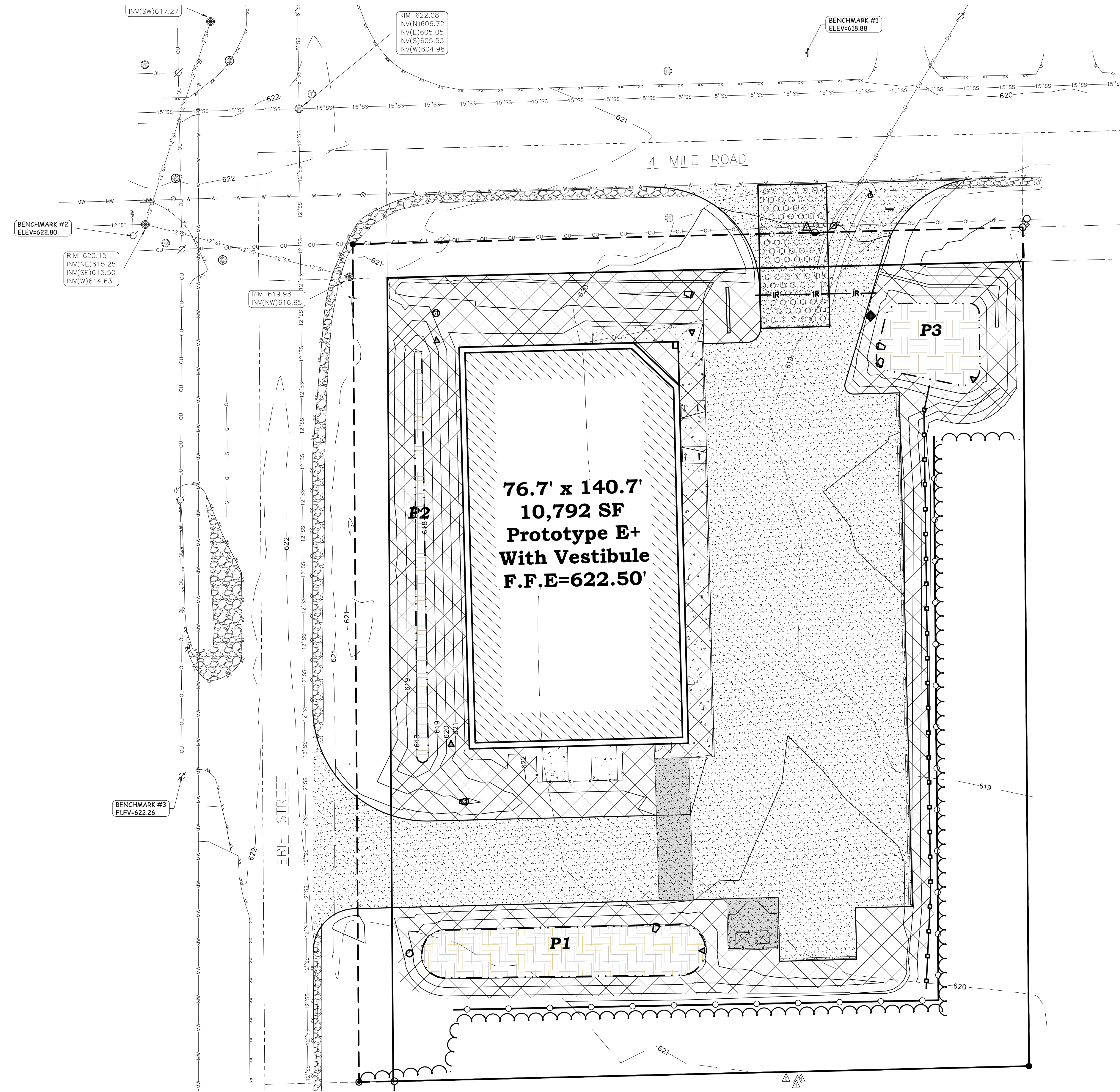
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4941 Kirchling Court  
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Point of Beginning

SHEET  
C3.0





**BENCHMARK:**

ELEVATIONS ARE REFERENCED TO NGVD 29 DATUM.

**BENCHMARK #1**  
609 NAIL ON SOUTH SIDE OF SIGN  
LOCATED ON THE NORTH SIDE OF 4 MILE ROAD NORTH OF  
THE SUBJECT PROPERTY.  
ELEVATION = 618.88

**BENCHMARK #2**  
ARROW BOLT ON HYDRANT  
LOCATED AT THE SOUTHWEST QUADRANT OF THE  
INTERSECTION OF 4 MILE ROAD AND ERIE STREET.  
ELEVATION = 622.80

**BENCHMARK #3**  
609 NAIL ON NORTHEAST SIDE OF POWER POLE  
LOCATED ON THE WEST SIDE OF ERIE STREET WEST OF THE  
SUBJECT PROPERTY.  
ELEVATION = 622.26

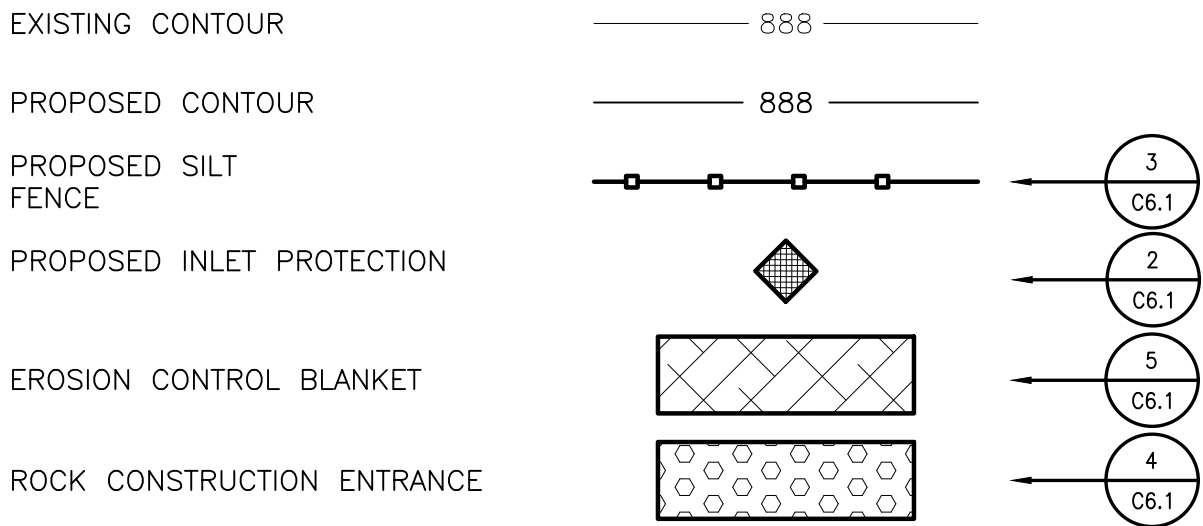
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**GENERAL NOTES:**

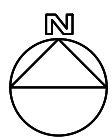
- CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- NOTIFY THE LOCAL MUNICIPALITY AT LEAST 2 WORKING DAYS PRIOR TO THE START OF SOIL DISTURBING ACTIVITIES.
- INSTALL ALL TEMPORARY EROSION CONTROL ELEMENTS PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- ALL ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AMOUNT OF BARE SOIL EXPOSED AT ANY ONE TIME. MAINTAIN EXISTING VEGETATION AS LONG AS POSSIBLE.
- CRUSHED ROCK DRIVES FOR SEDIMENT TRACKING UTILIZING 3" CRUSHED ROCK SHALL BE MAINTAINED AT ALL CONSTRUCTION ENTRANCES TO THE SITE. THE ROCK DRIVE SHALL BE A MINIMUM OF 12" THICK AND BE A MINIMUM OF 50 FEET IN LENGTH BY THE WIDTH OF THE DRIVEWAY.
- OFF SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORK DAY. ALL OFF SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES, INCLUDING SOIL TRACKED BY CONSTRUCTION TRAFFIC, SHALL AT A MINIMUM BE CLEANED BY THE END OF EACH WORK DAY. EXCESSIVE AMOUNTS OF SEDIMENT OR OTHER DEBRIS TRACKED ONTO ADJACENT STREETS SHALL BE CLEANED BY THE END OF EACH WORK DAY. EXCESSIVE AMOUNTS OF SEDIMENT OR OTHER DEBRIS TRACKED ONTO ADJACENT STREETS SHALL BE CLEANED IMMEDIATELY. FINE SEDIMENT ACCUMULATIONS SHALL BE CLEANED FROM ADJACENT STREETS BY THE USE OF MECHANICAL OR MANUAL SWEEPING OPERATIONS ONCE A WEEK AT A MINIMUM AND BEFORE IMMINENT RAIN EVENTS.
- DISTURBED GROUND OUTSIDE OF THE EVERYDAY CONSTRUCTION AREAS, INCLUDING SOIL STOCKPILES, THAT ARE LEFT INACTIVE FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY STABILIZED BY SEEDING/MULCHING OR OTHER APPROVED METHODS.
- WASTE MATERIAL THAT IS GENERATED ON THE CONSTRUCTION SITE SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO RUN INTO RECEIVING WATERS.
- EROSION CONTROL DEVICES DESTROYED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE END OF EACH WORK DAY.
- INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE A WEEK AND AFTER ANY RAINFALL OF 0.5" OR MORE. MAKE NEEDED REPAIRS AND DOCUMENT ALL ACTIVITIES AS PER THE REQUIREMENTS OF THE NOTICE OF INTENT SUBMITTED BY THE PROJECT CIVIL ENGINEER.
- ALL TEMPORARY EROSION CONTROL ELEMENTS SHALL REMAIN IN PLACE UNTIL A SUFFICIENT GROWTH OF VEGETATION IS ESTABLISHED AND THEN BE REMOVED AS PART OF THE BASE BID.
- IF SEDIMENT LADEN WATER NEEDS TO BE REMOVED FROM THE SITE, FILTER BAGS OR SCREENING SHALL BE USED IN ACCORDANCE WITH WI DNR TECHNICAL STANDARD 1061 TO PREVENT SEDIMENT DISCHARGE TO THE MAXIMUM EXTENT PRACTICABLE.
- COORDINATE ALL EARTHWORK ACTIVITIES WITH THE RESPECTIVE TRADES RESPONSIBLE FOR THE INSTALLATION OF GAS, CABLE, TELEPHONE AND ELECTRICAL (INCLUDING MAIN SERVICE, SITE LIGHTING, CONDUITS AND SIGNAGE).
- PROVIDE RIP RAP AT ALL CULVERT ENDWALL STRUCTURES TO PREVENT WASHOUT AND EROSION.
- INSTALL WisDOT TYPE HR FILTER FABRIC BENEATH UNDER RIP RAP.
- IF BARE SOIL IS EXPOSED DURING THE WINTER MONTHS, STABILIZATION BY MULCHING OR ANIONIC POLYACRYLAMIDE SHALL OCCUR PRIOR TO SNOWFALL OR GROUND FREEZE.
- SILT FENCE SHALL BE INSTALLED AROUND THE TOPSOIL STOCKPILE.
- SILT FENCE SHALL BE INSTALLED AROUND THE BIORETENTION AREA IMMEDIATELY FOLLOWING INSTALLATION OF THE ENGINEERED SOIL TO PROTECT IT FROM SILT CONTAMINATION.
- THE ENGINEERED SOIL SHALL NOT BE PLACED IN THE BIORETENTION AREAS UNTIL THE SURROUNDING DRAINAGE AREA HAS BEEN FULLY STABILIZED. ALL CONSTRUCTION SITE SEDIMENT SHALL BE REMOVED FROM THE SUBGRADE OF THE BIORETENTION AREA PRIOR TO PLACEMENT OF THE ENGINEERED SOIL.
- THE CONTRACTOR SHALL PERFORM INSPECTIONS AND MONITORING OF EROSION CONTROL PRACTICES IN ACCORDANCE WITH THE WI DNR "CONSTRUCTION SITE INSPECTION REPORT" FORM 3400-187. THIS FORM CAN BE FOUND IN THE CONSTRUCTION SPECIFICATIONS.

**EROSION CONTROL LEGEND:**



**EROSION CONTROL SEQUENCING:**

- INSTALL PERIMETER EROSION CONTROL
- EXCAVATE A TEMPORARY SEDIMENT TRAP AT THE PROPOSED BIO-RETENTION AREA IN ACCORDANCE WITH DNR TECHNICAL STANDARD 1063
  - SEDIMENT TRAP BOTTOM BASIN ELEVATION SHALL BE P1=617.30', P2=617.150', P3=618.00'
  - EXCAVATE SWALES NORTH AND EAST FROM THE BASIN TO DIRECT AND MAXIMIZE STORMWATER RUNOFF TO THIS BASIN DURING CONSTRUCTION
- BEGIN DEMOLITION
- BEGIN ROUGH GRADING AND UTILITY INSTALLATION
- DURING GRADING ACTIVITIES EXISTING GRASS AND VEGETATION, TO BE REMOVED, SHALL REMAIN IN PLACE FOR AS LONG AS POSSIBLE, TO AVOID SEDIMENT TRANSPORT.
- TEMPORARY STABILIZATION ACTIVITY SHALL COMMENCE WHEN LAND DISTURBING CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- FINAL STABILIZATION ACTIVITY SHALL COMMENCE WHEN LAND DISTURBING ACTIVITIES CEASE AND FINAL GRADE HAS BEEN REACHED ON ANY PORTION OF THE SITE.
- PER GENERAL NOTE #19, THE SEDIMENT TRAP SHALL BE RECONSTRUCTED INTO THE PROPOSED BIO-RETENTION AREA AFTER THE SURROUNDING AREA HAS BEEN FULLY STABILIZED.
  - ANY CONSTRUCTION SITE SEDIMENT BUILD UP SHALL BE REMOVED FROM THE PROPOSED BIO-RETENTION BASIN BEFORE EXCAVATION TO THE FINAL DEPTH AND INSTALLATION OF THE ENGINEERED SOIL
- IF DISTURBED AREAS MUST BE LEFT OVER WINTER, AN ANIONIC POLYACRYLAMIDE SHALL BE APPLIED TO ALL DISTURBED AREAS PRIOR TO GROUND FREEZE. SEE SPECIFICATIONS FOR DETAILS.



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| PROJECT NO. | 21.028     |

EROSION CONTROL PLAN

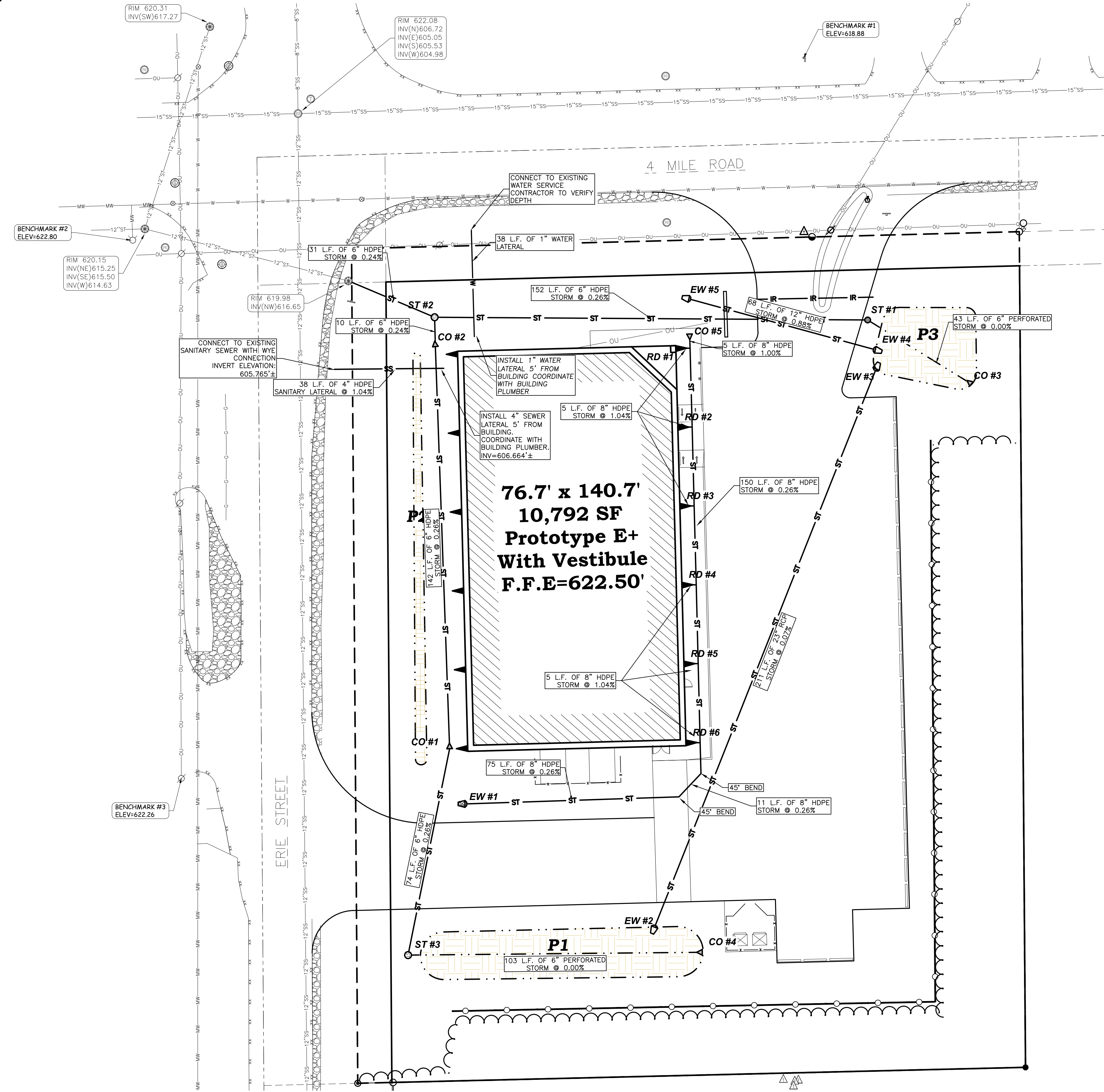
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Point of Beginning

SHEET  
C4.0





### BENCHMARK:

ELEVATIONS ARE REFERENCED TO NGVD 29 DATUM.

**BENCHMARK #1**  
609 NAIL ON SOUTH SIDE OF SIGN  
LOCATED ON THE NORTH SIDE OF 4 MILE ROAD NORTH OF  
THE SUBJECT PROPERTY.  
ELEVATION = 618.88

**BENCHMARK #2**  
ARROW BOLT ON HYDRANT  
LOCATED AT THE SOUTHWEST QUADRANT OF THE  
INTERSECTION OF 4 MILE ROAD AND ERIE STREET.  
ELEVATION = 622.80

**BENCHMARK #3**  
609 NAIL ON NORTHEAST SIDE OF POWER POLE  
LOCATED ON THE WEST SIDE OF ERIE STREET WEST OF THE  
SUBJECT PROPERTY.  
ELEVATION = 622.26

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### GENERAL NOTES:

- CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
- GRADE, LINE, AND LEVEL SHALL BE REVIEWED IN THE FIELD BY THE CONSTRUCTION MANAGER.
- ANY EXISTING UTILITIES NOT SHOWN ON THIS DOCUMENT WHICH NEED TO BE REMOVED, RELOCATED AND OR ADJUSTED SHALL BE THE RESPONSIBILITY OF THE SITE GRADING CONTRACTOR.
- REFER TO THE PROPOSED BUILDING MECHANICAL/PLUMBING PLANS TO VERIFY EXACT CONNECTION LOCATIONS AND SIZES OF PROPOSED SANITARY SEWER AND WATER LATERALS.
- COORDINATE ALL UTILITY WORK WITH THE RESPECTIVE TRADES RESPONSIBLE FOR THE INSTALLATION OF GAS, CABLE, TELEPHONE AND ELECTRICAL (INCLUDING MAIN SERVICE, SITE LIGHTING, CONDUITS AND SIGNAGE).
- COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAY WITH THE LOCAL MUNICIPALITY.
- ALL TESTING AND INSPECTION SHALL BE DONE IN ACCORDANCE WITH SPS 382.21.
- THE PROPOSED WATER MAIN SHALL HAVE A MINIMUM COVER OF 7'-6" TO THE TOP OF PIPE FROM PROPOSED FINISHED GRADE. SEE SHEET C3.0 FOR PROPOSED FINISHED GRADE.
- THE MUNICIPALITY SHALL BE CONTACTED PRIOR TO ANY EXCAVATION IN THE PUBLIC RIGHT-OF-WAY, AND PRIOR TO CONNECTING SANITARY SEWER AND WATER LATERALS TO THE PUBLIC MAINS.
- THE CONTRACTOR SHALL HAVE A TRAFFIC CONTROL PLAN APPROVED PRIOR TO WORK COMMENCING.
- THE MUNICIPALITY SHALL OPERATE ALL EXISTING WATER VALVES, IF NEEDED.
- FIELD VERIFY INVERT ELEVATION OF THE SANITARY SEWER AND WATER PUBLIC MAIN, AT THE LOCATION OF THE SERVICE LATERAL CONNECTIONS, PRIOR TO CONNECTING THE LATERALS TO THE PUBLIC MAIN.
- PROVIDE RIP RAP AT ALL STORM ENDWALLS TO PREVENT WASHOUT AND EROSION.
- INSTALL WsDOT TYPE HR FILTER FABRIC BENEATH PROPOSED RIP RAP.

### UTILITY LEGEND:

- PROPOSED STORMSEWER
  - PROPOSED SANITARY SEWER
  - PROPOSED WATER MAIN
  - STORM SEWER MANHOLE
  - STORM SEWER INLET
  - STORM SEWER ENDWALL
  - STORM SEWER ENDWALL W/ RIPRAP
  - BIO-RETENTION BASIN
  - INFILTRATION BASIN
  - ROOF DRAIN
- 

### STORM STRUCTURE SCHEDULE:

| STRUCTURE # | STRUCTURE DETAILS                                                                                                                                                  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ST #1       | RIM = 620.65<br>INV (SE) = 617.15<br>INV (W) = 617.13<br>DEPTH = 3.52'<br>36" I.D. PRECAST MANHOLE<br>W/ NEENAH R-2556                                             |
| ST #2       | RIM = 621.36<br>INV (E) = 616.72<br>INV (S) = 616.72<br>INV (NW) = 616.65<br>DEPTH = 4.71'<br>48" I.D. PRECAST MANHOLE<br>W/ NEENAH R-1555 CASTING<br>W/ SOLID LID |
| ST #3       | RIM = 620.38<br>INV (E) = 617.30<br>INV (N) = 617.30<br>DEPTH = 3.08'<br>48" I.D. PRECAST MANHOLE<br>W/ NEENAH R-1555 CASTING<br>W/ SOLID LID                      |

### STORM CLEAN OUT SCHEDULE:

| STRUCTURE # | STRUCTURE DETAILS                                                                          |
|-------------|--------------------------------------------------------------------------------------------|
| CO #1       | RIM = 620.50<br>INV (S) = 617.11<br>INV (N) = 617.11<br>DEPTH = 3.86'<br>8" STORM CLEANOUT |
| CO #2       | RIM = 620.22<br>INV (S) = 616.75<br>INV (N) = 616.75<br>DEPTH = 3.95'<br>8" STORM CLEANOUT |
| CO #3       | RIM = 619.15<br>INV (NW) = 617.15<br>DEPTH = 2.00'<br>8" STORM CLEANOUT                    |
| CO #4       | RIM = 618.90<br>INV (W) = 617.30<br>DEPTH = 1.60'<br>8" STORM CLEANOUT                     |
| CO #5       | RIM = 622.17<br>INV (S) = 620.46<br>DEPTH = 1.71'<br>STORM CLEANOUT                        |

### STORM ENDWALL SCHEDULE:

| STRUCTURE # | STRUCTURE DETAILS                                |
|-------------|--------------------------------------------------|
| EW #1       | INV (E) = 619.80<br>8" HDPE ENDWALL<br>W/ RIPRAP |
| EW #2       | INV (N) = 619.30<br>12" HDPE ENDWALL             |
| EW #3       | INV (S) = 619.15<br>12" HDPE ENDWALL             |
| EW #4       | INV (W) = 619.15<br>12" HDPE ENDWALL             |
| EW #5       | INV (E) = 619.75<br>12" HDPE ENDWALL             |

### STORM ROOF DRAIN SCHEDULE

| STRUCTURE # | STRUCTURE DETAILS                                                  |
|-------------|--------------------------------------------------------------------|
| RD #1       | RIM = 622.50<br>INV (E) = 620.47<br>DEPTH = 2.30'<br>8" ROOF DRAIN |
| RD #2       | RIM = 622.00<br>INV (E) = 620.39<br>DEPTH = 1.60'<br>8" ROOF DRAIN |
| RD #3       | RIM = 622.50<br>INV (E) = 620.32<br>DEPTH = 2.18'<br>8" ROOF DRAIN |
| RD #4       | RIM = 622.50<br>INV (E) = 620.25<br>DEPTH = 2.25'<br>8" ROOF DRAIN |
| RD #5       | RIM = 622.50<br>INV (E) = 620.18<br>DEPTH = 2.32'<br>8" ROOF DRAIN |
| RD #6       | RIM = 622.50<br>INV (E) = 620.10<br>DEPTH = 2.40'<br>8" ROOF DRAIN |

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CHECKED: JUL  
DRAWN: JUL  
DATE 10/11/2021  
PROJECT NO. 21.028

UTILITY PLAN

MIDWEST WI, LLC  
DOLLAR GENERAL  
VILLAGE OF CALEDONIA  
RACINE CO, WISCONSIN

Civil Engineering  
Land Surveying  
Landscape Architecture  
4941 Kirchling Court  
Stevens Point, WI 54481  
715.344.9999 (PH) 715.344.9922 (FX)

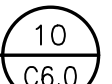
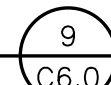
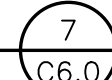
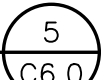
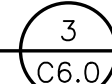
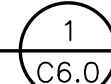
Point of Beginning

SHEET C5.0

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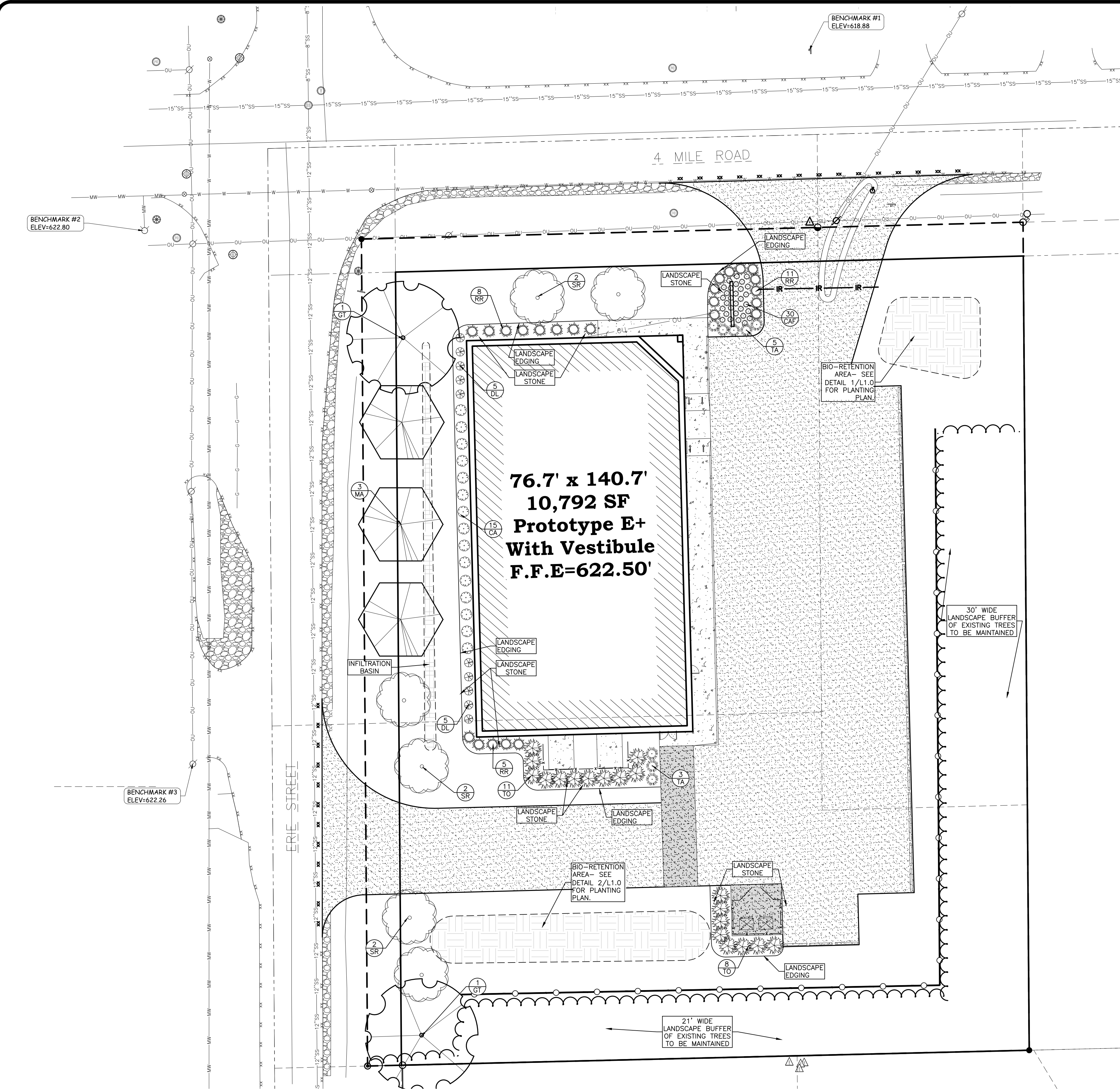
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**SHEET**  
**C6.0**





BENCHMARK:

ELEVATIONS ARE REFERENCED TO NGVD 29 DATUM.

**BENCHMARK #1**  
60# NAIL ON SOUTH SIDE OF SIGN  
LOCATED ON THE NORTH SIDE OF 4 MILE ROAD NORTH OF  
THE SUBJECT PROPERTY.  
ELEVATION = 618.88

**BENCHMARK #2**  
ARROW BOLT ON HYDRANT  
LOCATED AT THE SOUTHWEST QUADRANT OF THE  
INTERSECTION OF 4 MILE ROAD AND ERIE STREET.  
ELEVATION = 622.80

**BENCHMARK #3**  
60# NAIL ON NORTHEAST SIDE OF POWER POLE  
LOCATED ON THE WEST SIDE OF ERIE STREET WEST OF THE  
SUBJECT PROPERTY.  
ELEVATION = 622.26

UTILITY DISCLAIMER:

THE LOCATIONS, SIZES, AND TYPES OF UNDERGROUND PUBLIC AND PRIVATE UTILITIES OR SUBSTRUCTURES SHOWN HEREON WERE OBTAINED FROM VISUAL INSPECTION, FIELD MEASUREMENTS, AND/OR AS-BUILT PLANS. SANITARY SEWER AND STORM SEWER PIPE SIZES, INVERTS, DIRECTION, AND LOCATIONS BETWEEN MANHOLES ARE SUPPLEMENTED BY AS-BUILT PLANS AND/OR ESTIMATED BASED ON FIELD OBSERVATIONS. PRIOR TO CONSTRUCTION IN THE VICINITY OF ANY UTILITIES SHOWN HEREON, IT IS RECOMMENDED THAT THE LOCATIONS, DEPTHS, AND SIZES BE FIELD VERIFIED. THE LOCATIONS SHOWN HEREON ARE ONLY APPROXIMATE, WITH POSSIBILITY THAT ADDITIONAL UTILITY LINES NOT DISCOVERED, OR MARKED, DURING THE SEARCH OF RECORDS AND THE FIELD SURVEY MAY EXIST. ANY CONTRACTOR USING THE INFORMATION SHOWN HEREON IS HEREBY FOREWARNED THAT ANY EXCAVATION UPON THIS SITE MAY RESULT IN THE DISCOVERY OF ADDITIONAL UNDERGROUND UTILITIES NOT SHOWN HEREON. IN GENERAL, UNDERGROUND UTILITY LOCATIONS ARE SHOWN FROM UTILITY MARKINGS, BY OTHERS, AND/OR AS-BUILT PLANS, PROVIDED BY OTHERS. POINT OF BEGINNING MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE EXISTING UTILITIES SHOWN HEREON, AND BELIEVES THAT THE INFORMATION CONTAINED HEREIN IS RELIABLE AND GENERALLY ACCURATE FOR THE PURPOSE INTENDED.

GENERAL NOTES:

- CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF DEMOLITION/CONSTRUCTION.
- 6" OF TOPSOIL SHALL BE PROVIDED IN ALL GENERAL LANDSCAPE AREAS. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SPECIFIED PLANTING SOIL DEPTH IS PRESENT PRIOR TO PLANTING.
- SEED/FERTILIZE/CRIMP HAY MULCH ALL GENERAL LANDSCAPE AREAS DISTURBED DURING CONSTRUCTION.
- ALL PLANT MATERIALS LISTED SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION FOR THE SIZES GIVEN.
- ALL TREES SHALL BE STAKED WITH A MINIMUM OF THREE STAKES.
- ALL TREES IN THE TURF AREA SHALL HAVE A 5" DIAMETER CIRCLE OF 4" DEPTH SHREDDED HARDWOOD BARK MULCH.
- CURV-RITE LANDSCAPE EDGING (SERIES 3000, 3/16" X 4", W/MILL FINISH) OR APPROVED EQUAL SHALL BE PLACED AROUND ALL LANDSCAPE BEDS.
- FILTER FABRIC, WSDOT TYPE HR, SHALL BE PLACED BENEATH ALL LANDSCAPE STONE. DEWITT WEED BARRIER-20 YEAR SHALL BE PLACED BENEATH ALL LANDSCAPE STONE IN PLANTING AREAS.
- VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. REPAIR ALL DAMAGED UTILITIES TO OWNER'S SATISFACTION AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL AND LAWNS UNTIL THE PROJECT IS FULLY ACCEPTED BY THE LANDSCAPE ARCHITECT, UNLESS OTHERWISE NOTED.
- ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF TWO (2) CALENDAR YEARS AFTER FINAL ACCEPTANCE.
- INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. COORDINATE WITH OWNER TO OBTAIN ANY REQUIRED PERMITS NECESSARY TO COMPLETE WORK.
- CONTRACTOR SHALL TEST ALL TREE PITS FOR DRAINAGE. ANY TREE PIT THAT HOLDS WATER FOR MORE THAN 24 HOURS SHALL BE INSTALLED USING TREE PIT DRAINAGE.
- COORDINATE ALL LANDSCAPE WORK WITH GAS, ELECTRIC, (INCLUDING MAIN SERVICE, SITE LIGHTING, CONDUITS AND SIGNAGE) CABLE AND TELEPHONE CONSTRUCTION AND RESPECTIVE TRADES FOR THE INSTALLATION OF SAID UTILITIES.
- 3" DEPTH OF 1-1/2" DIAMETER STONE MULCH SHALL BE PLACED IN PLANTING BEDS AS NOTED ON THIS SHEET. STONE FOR LANDSCAPE BEDS TO BE NATURALLY ROUNDED AND WASHED, GRADUATION FROM 1" TO 1-1/2" MAXIMUM, RIVER ROCK OR APPROVED EQUAL.

PLANTING SCHEDULE:

| TREES   |                                              |                       |                   |                  |          |
|---------|----------------------------------------------|-----------------------|-------------------|------------------|----------|
| SYMBOLS | BOTANICAL NAME                               | COMMON NAME           | INSTALLATION SIZE | SIZE AT MATURITY | QUANTITY |
| MA      | MAAKIA AMURENSIS                             | AMUR MAAKIA           | 1.5" CAL.         | 20-30'T & W      | 3        |
| GT      | GLEDITSIA TRIACANTHOS VAR. INERMIS 'IMPCOLE' | IMPERIAL HONEYLOCUST  | 2" CAL.           | 30-40'T & W      | 2        |
| SR      | SYRINGA RETICULATA 'IVORY SILK'              | IVORY SILK TREE LILAC | 1.5" CAL.         | 20'T & W         | 6        |

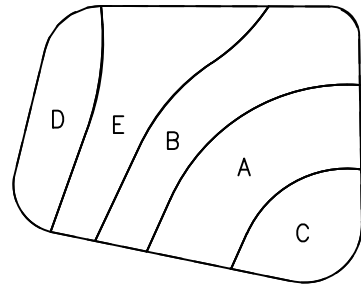
| SHRUBS  |                                   |                                     |                   |                  |          |
|---------|-----------------------------------|-------------------------------------|-------------------|------------------|----------|
| SYMBOLS | BOTANICAL NAME                    | COMMON NAME                         | INSTALLATION SIZE | SIZE AT MATURITY | QUANTITY |
| CA      | CEANOTHUS AMERICANUS              | NEW JERSEY TEA                      | #3                | 3-4'T X 4-5'W    | 15       |
| DL      | DIERVILLA LONICERA                | NORTHERN BUSH HONEYSUCKLE           | #3                | 3'T X 3-4'W      | 10       |
| RR      | ROSA RUGOSA 'MEITOZAURE'          | RUGOSTAR RASPBERRY GROUNDCOVER ROSE | #3                | 2-3'T X 3-5'W    | 24       |
| TA      | THUJA OCCIDENTALIS 'GOLDEN GLOBE' | GOLDEN GLOBE ARBORVITAE             | #3                | 4'T & W          | 8        |
| TO      | THUJA OCCIDENTALIS 'TECHNY'       | TECHNY ARBORVITAE                   | 5-7'T             | 12-15'T X 6-8'W  | 19       |

| ORNAMENTAL GRASS |                                             |                                     |                   |                  |          |
|------------------|---------------------------------------------|-------------------------------------|-------------------|------------------|----------|
| SYMBOLS          | BOTANICAL NAME                              | COMMON NAME                         | INSTALLATION SIZE | SIZE AT MATURITY | QUANTITY |
| CAF              | CALAMAGROSTIS X ACUTIFLORA<br>KARL FOERSTER | KARL FOERSTER FEATHER<br>REED GRASS | #2                | 6'T X 2'W        | 30       |

SITE PLAN RATIOS:

|                                                       |
|-------------------------------------------------------|
| BITUMINOUS PAVEMENT OR CONCRETE: 19,425 S.F. OR 28.1% |
| BUILDING: 10,800 S.F. OR 15.7%                        |
| GREEN OR OPEN SPACE: 38,736 S.F. OR 56.2%             |

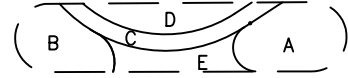
BIO-RETENTION PLANTING DETAILS



| PLANT CLUSTER | SIZE | TOTAL PLUGS |
|---------------|------|-------------|
| A             | PLUG | 100         |
| B             | PLUG | 125         |
| C             | PLUG | 75          |
| D             | PLUG | 75          |
| E             | PLUG | 100         |

| BOTANICAL NAME           | COMMON NAME            |
|--------------------------|------------------------|
| A-MONARDA FISTULOSA      | BERGAMOT               |
| B-RUDBECKIA SUBTOMENTOSA | SWEET BROWN-EYED SUSAN |
| C-LOBELIA SIPHILITICA    | GREAT BLUE LOBELIA     |
| D-CAREX VULPINOIDEA      | FOX SEDGE              |
| E-ASTER NOVAE-ANGLIAE    | NEW ENGLAND ASTER      |

\*\*1 PLUG FOR EVERY 2 SQUARE FEET



| PLANT CLUSTER | SIZE | TOTAL PLUGS |
|---------------|------|-------------|
| A             | PLUG | 300         |
| B             | PLUG | 225         |
| C             | PLUG | 150         |
| D             | PLUG | 150         |
| E             | PLUG | 150         |

| BOTANICAL NAME           | COMMON NAME            |
|--------------------------|------------------------|
| A-MONARDA FISTULOSA      | BERGAMOT               |
| B-RUDBECKIA SUBTOMENTOSA | SWEET BROWN-EYED SUSAN |
| C-LOBELIA SIPHILITICA    | GREAT BLUE LOBELIA     |
| D-CAREX VULPINOIDEA      | FOX SEDGE              |
| E-ASTER NOVAE-ANGLIAE    | NEW ENGLAND ASTER      |

\*\*1 PLUG FOR EVERY 2 SQUARE FEET

POND P1 PLANTING

2  
L1.0

POND P3 PLANTING

1  
L1.0

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REVISIONS

|             |            |
|-------------|------------|
| CHECKED:    | JUL        |
| DRAWN:      | JUL        |
| DATE        | 10/11/2021 |
| PROJECT NO. | 21.028     |

LANDSCAPE PLAN

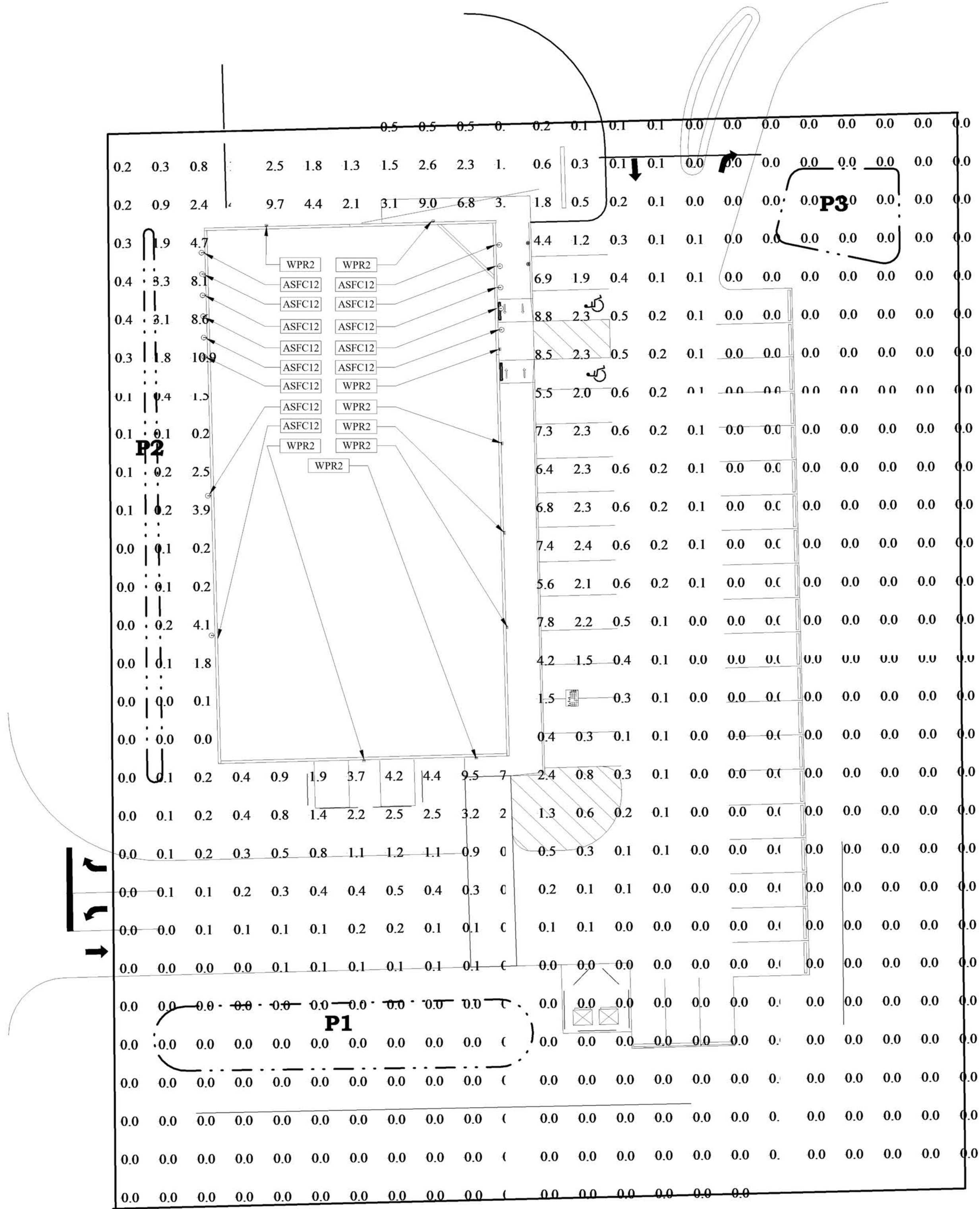
MIDWEST WI, LLC  
DOLLAR GENERAL  
VILLAGE OF CALEDONIA  
RACINE CO, WISCONSIN

Civil Engineering  
Land Surveying  
Landscape Architecture  
4941 Kirchling Court  
Stevens Point, WI 54481  
715.344.9999 (PH) 715.344.9922 (FX)

Point of Beginning

SHEET  
L1.0

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2021.10.14 15:05:54



① Site Photometric Points  
1" = 20'-0"



| Lighting Fixture Schedule |                                  |       |                                          |                  |         |
|---------------------------|----------------------------------|-------|------------------------------------------|------------------|---------|
| Manufacturer              | Model                            | Count | Description                              | Luminaire Lumens | Wattage |
| Barn Light Elec. Co.      | ASFC12                           | 13    | Exterior Goose Neck Sign Light in Bronze | 1081 lm          | 12 W    |
| USLED                     | WPR2-40-50-BZ - Regal2 Wall Pack | 8     | Wall Mounted                             | 4616 lm          | 51 W    |

| Calculation Summary @ Grade - Calculation Points = 10x10' |         |         |         |         |         |
|-----------------------------------------------------------|---------|---------|---------|---------|---------|
| Label                                                     | Average | Maximum | Minimum | Avg/Min | Max/Min |
| Detail Filled Region                                      | 1 fc    | 11 fc   | 0 fc    | 435.6   | 8118.4  |

**PROPOSED NEW**  
**DOLLAR GENERAL**  
Racine WI.

|                   |             |      |
|-------------------|-------------|------|
| Dollar General    |             |      |
| PROJECT NUMBER    |             |      |
| XXXXXX            |             |      |
| DATE:             | 2021.10.14  |      |
| DRAWN BY:         | NTH         |      |
| CHECKED BY:       | JDV         |      |
| Revision Schedule |             |      |
| No.               | Description | Date |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |

Conceptual

Photometric  
Plan

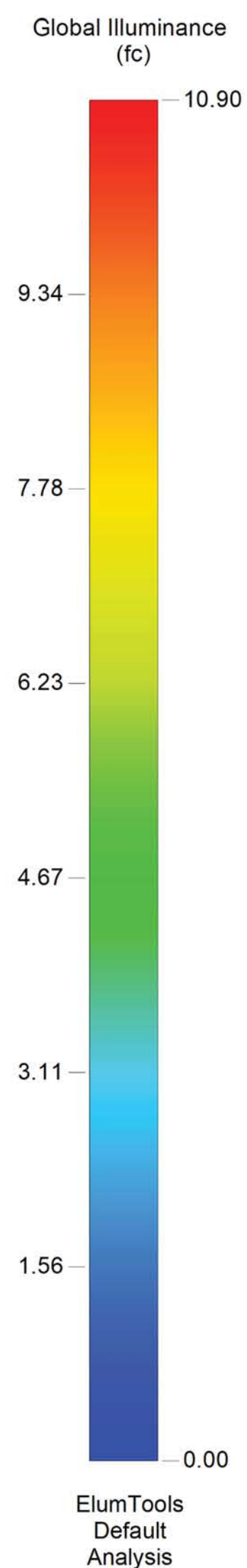
E 400



## Racine WI.

[illegible]Photometric  
Spacial Map

E 401

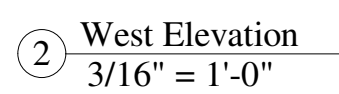
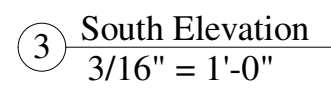
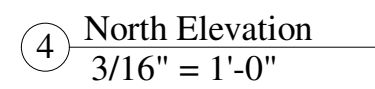
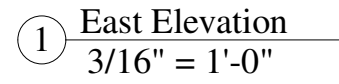


1 Site Photometric Spacial Map  
1" = 20'-0"



[illegible]

## A2.0



| Keynote Legend |                                | Keynote Legend |                                               |
|----------------|--------------------------------|----------------|-----------------------------------------------|
| Number         | Description                    | Number         | Description                                   |
| 01             | Wood Framed Building and Truss | 07             | Pre-Finished Trim, Color - White              |
| 02             | Stacked Stone Veneer           | 08             | Mechanical Equipment and 6ft Screen           |
| 03             | Fiber Cement Slat Siding       | 09             | Prefinished Metal Canopy, Color - Dark Bronze |
| 04             | Fiber Cement Horizontal Siding | 10             | Pre-Finished Aluminum Drip Edge & Fascia      |
| 05             | Exterior LED Fixture           | 11             | Continuously Vented Aluminum Soffit           |
| 06             | Asphalt Shingle Roof           | 12             | Spandrel Glass                                |





① Orthographic



② Perspective

|                   |             |      |
|-------------------|-------------|------|
| Dollar General    |             |      |
| PROJECT NUMBER    |             |      |
| 1211              |             |      |
| DATE:             | 2021.09.02  |      |
| DRAWN BY:         | NTH         |      |
| CHECKED BY:       | PO          |      |
| Revision Schedule |             |      |
| No.               | Description | Date |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
|                   |             |      |
| Conceptual        |             |      |













September 14, 2021

Anthony A. Bunkelman, PE  
Village of Caledonia  
5043 Chester Lane  
Racine, WI 53402

RE: TIA Review  
Proposed Dollar General  
4 Mile Road & Erie Street  
Caledonia, WI

Dear Mr. Bunkelman,

The following is the results of our review of the traffic impact analysis completed by TADI and submitted to the Village of Caledonia on August 9, 2021.

The TIA from TADI has one major issue and several minor ones.

1. Traffic exiting to 4 Mile Road is only to turn right. There are no signs shown to require this exit movement to be right turn only. It also is very difficult to control traffic to be right turn only without a median directing them right. I attached a sketch for how this should be built. Two parking stalls are used to do this.
2. The pavement marking for the left turn eastbound on 4 Mile Road needs to be extended to provide left turns to the Dollar Store in a turn bay. This is also shown in the attached sketch.
3. The proportional traffic distribution in AM peak is 40% from the west, 20% from the north, 30% from the east and 10% from the south.
4. The proportional traffic distribution in PM peak is 40% from the west, 15% from the north, 25% from the east and 10% from the south.
5. The TIA report has traffic distributed 35% from the west, 15% from the north, 25% from the east and 25% from the south. The small amount of traffic is not impacted by this change.

The trip generation Table in the report has relatively small values so it will not change the LOS results for the correction of distribution.

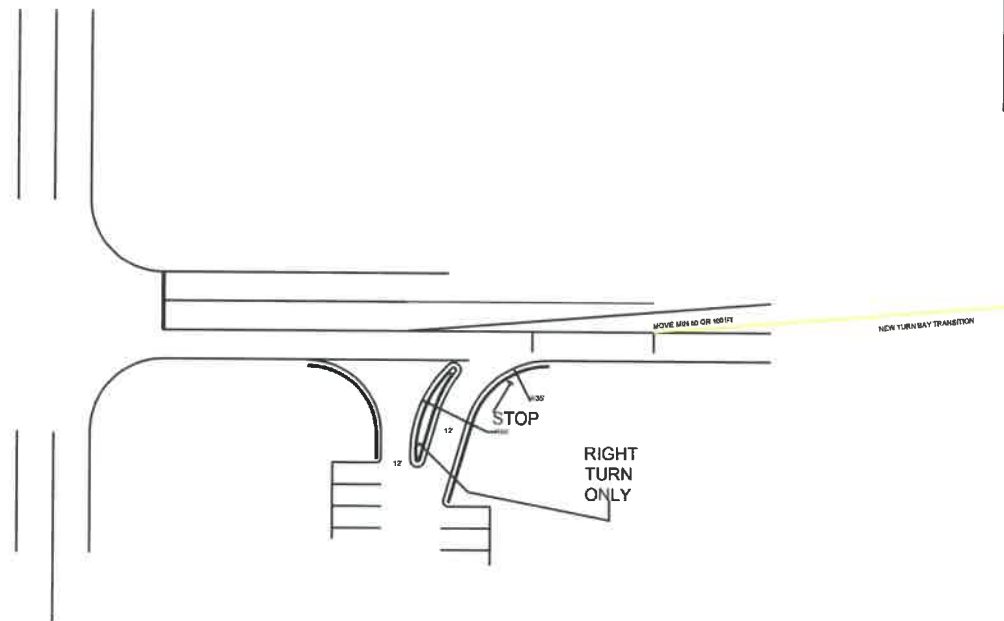
What is significant is the prohibition of the left out movement to 4 Mile Road and proper left turn storage inbound from 4 Mile Road.

Sincerely,

*Wayne R. Higgins*

Wayne R. Higgins, PE, PTOE  
President





TE TRAFFIC ENGINEERING, INC.

DATE: 9-15-2021

SHEET NO. 1

**Date:** September 21, 2021

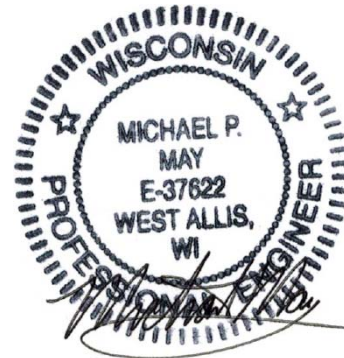
## Traffic Impact Analysis Memorandum

**To:** Anthony Bunkelman, P.E.  
Village of Caledonia Public Works

**From:** Michael May, P.E. PTOE

**cc List:** Jim Lundberg, P.E.  
Point of Beginning, Inc.

**Subject:** Proposed Dollar General  
Caledonia, Wisconsin



### PART A – INTRODUCTION

Dollar General is proposed to be located in the southeast corner of 4 Mile Road & Erie Street on the east side of the Village of Caledonia, Racine County. A site location map is shown in [Exhibit A](#). The Dollar General conceptual site plan is shown in [Exhibit B](#). A traffic impact analysis (TIA) is required for the development in accordance with Village Resolution No. 2011-06.

TADI performed this TIA to determine and document the expected weekday morning and weekday evening peak hour operating conditions and recommendations at identified study area intersections. This report documents the procedures, findings, and conclusions of the analysis. The analysis identifies recommended modifications based on existing roadway conditions and additional traffic expected to be generated by Dollar General. Note that this TIA replaces a TIA submitted on August 9, 2021, is based on new counts performed with school in session, and includes traffic to/from the Waters Edge Place off-site development.

### PART B – STUDY AREA & PROJECT DESCRIPTION

The study area includes the following intersections.

- 4 Mile Road & Erie Street (existing intersection, all-way stop control)
- 4 Mile Road & East Driveway (proposed intersection, one-way stop control)
- Erie Street & South Driveway (proposed intersection, one-way stop control)

A transportation detail illustrating existing intersection lane configurations and speed limits is shown in [Exhibit C](#).

*4 Mile Road* is a two-lane east/west highway with a posted speed limit of 35 mph. According to WisDOT, the Year 2017 annual average daily traffic (AADT) volume on 4 Mile Road was approximately 6,600 vehicles per day (vpd) east of Erie Street. Exclusive left-turn lanes exist on

4 Mile Road at its intersection with Erie Street. No pedestrian, bicycle, or transit accommodations exist along 4 Mile Road within the study area.

*Erie Street* is a two-lane undivided north/south road with a posted speed limit of 30 mph. The WisDOT Year 2011 AADT volume was approximately 2,900 vpd north of 4 Mile Road. No dedicated turn lanes exist on Erie Street at 4 Mile Road. No pedestrian, bicycle, or transit accommodations exist along Erie Street within the study area. A Class B weight restriction is posted on Erie Street.

The study area is primarily built-out with residential development. A liquor store is located in the southwest corner of the intersection and a gas station with C-store is located in the northwest corner. The site of the proposed 10,640 square foot (sf) Dollar General is undeveloped and zoned B-1 Neighborhood Business District. As shown in [Exhibit B](#), the development plan includes one left-in/right-in/right-out driveway along 4 Mile Road (“East Driveway”) approximately 170-feet east of Erie Street (center-to-center) and one full-movement driveway along Erie Street (“South Driveway”) approximately 235-feet south of 4 Mile Road (center-to-center).

## **PART C – TRAFFIC VOLUMES**

### **C1. Year 2021 Background Traffic Volumes**

An intersection turning movement traffic count was performed at 4 Mile Road & Erie Street from 6:00am to 9:00am and from 3:00pm to 6:00pm in mid-September 2021 while school was in session. Based on the counts, the weekday morning evening peak hours were identified as being 7:45 to 8:45am and 3:00 to 4:00pm under favorable weather conditions. The Year 2021 unadjusted existing traffic volumes are shown in [Exhibit D1](#).

TADI compared the peak hour counts against WisDOT mainline hourly traffic volumes to determine if adjustments should be made.

- The peak hour turning movement volumes along Erie Street were higher than the hourly mainline volumes and, therefore, no adjustment was needed to volumes along and to/from Erie Street.
- Along 4 Mile Road, the weekday morning peak hour volumes were less than the hourly mainline volumes but the weekday evening peak hour volumes were more than the hourly mainline volumes. To bring the weekday morning turning movement volumes on 4 Mile Road at Erie Street up to the hourly mainline volumes, the weekday morning through volumes on 4 Mile Road were increased by 8.7% (a factor of 1.087).

The Year 2021 adjusted existing traffic volumes are shown in [Exhibit D2](#).

The Waters Edge Place off-site development is planned north of 4 Mile Road with access to Erie Street. A TIA for Waters Edge Place was completed in January of 2021. The Waters Edge Place TIA contemplated a future 5 Mile Road extension. The Waters Edge Place new trips without 5 Mile Road extension are shown in [Exhibit D3](#) while the Waters Edge Place new trips with a 5 Mile Road extension are shown in [Exhibit D4](#). These trip assignments came from the Waters Edge Place TIA.

The Year 2021 background traffic were determined by summing the Year 2021 adjusted existing traffic volumes ([Exhibit D2](#)) and the Waters Edge Place new trips without 5 Mile Road extension ([Exhibit D3](#)). The resulting Year 2021 background traffic volumes used in the traffic analysis are shown in [Exhibit D5](#).

## C2. Year 2041 Background Traffic Volumes

Historical traffic counts from Year 1987 through Year 2017 were plotted to estimate the annual linear growth rate within the study area. The results, included in the appendices, show that traffic along Erie Street have been in steady decline since 1993 (i.e., a negative annual growth) while traffic along 4 Mile Road has been increasing at an annual growth rate of approximately 0.10% per year.

Though Erie Street has a negative annual growth and 4 Mile Road has a low 0.10% annual growth, a 0.50% annual growth rate was applied to the Year 2021 adjusted existing traffic volumes ([Exhibit D2](#)) to estimate the Year 2041 forecast traffic volumes shown in [Exhibit E1](#).

As previously mentioned, the Waters Edge Place TIA contemplated a future 5 Mile Road extension. The TIA estimated that approximately 45% of traffic turning to/from the west from/to Erie at 4 Mile Road would divert and instead use the new 5 Mile Road extension. The Year 2041 5 Mile Road diverted trips are shown in [Exhibit E2](#).

The Year 2041 background traffic were determined by summing the Year 2041 forecast traffic volumes ([Exhibit E1](#)), and the Waters Edge Place new trips with 5 Mile Road extension ([Exhibit D4](#)), and the Year 2041 5 Mile Road diverted trips. The resulting Year 2041 background traffic volumes used in the traffic analysis are shown in [Exhibit E3](#).

## C3. Development Traffic

To address potential future traffic impacts at the study area intersection, it is necessary to identify the hourly volume of traffic generated by Dollar General. The traffic volumes expected to be generated by Dollar General are based on the size and type of the proposed use and on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition, 2017. The Dollar General trip generation is shown below in [Table 1](#).

**Table 1**  
**Dollar General Trip Generation Table**

| Land Use               | ITE Code | Proposed Size    | Weekday Daily  | AM Peak     |             |              | PM Peak     |             |              |
|------------------------|----------|------------------|----------------|-------------|-------------|--------------|-------------|-------------|--------------|
|                        |          |                  |                | In          | Out         | Total        | In          | Out         | Total        |
| Dollar General         | 814      | 10.64 x 1,000 SF | 680<br>(63.47) | 20<br>(57%) | 15<br>(43%) | 35<br>(3.18) | 40<br>(52%) | 35<br>(48%) | 75<br>(6.84) |
| <b>Total New Trips</b> |          |                  | <b>680</b>     | <b>20</b>   | <b>15</b>   | <b>35</b>    | <b>40</b>   | <b>35</b>   | <b>75</b>    |

The trip generation was assigned to the study area network with the estimate that 35% of development traffic will travel to/from the west on 4 Mile Road, 25% will travel to/from the east on 4 Mile Road, 15% will travel to/from the north on Erie Street, and 25% will travel to/from the south on Erie Street. The Dollar General new trips are shown in [Exhibit F](#).

#### C4. Year 2021 Build & Year 2041 Build Traffic Volumes

The Year 2021 build traffic volumes, shown in [Exhibit G](#), were determined by adding the Year 2021 background traffic volumes ([Exhibit D5](#)) to the Dollar General new trips ([Exhibit F](#)).

The Year 2041 build traffic volumes, shown in [Exhibit H](#), were determined by adding the Year 2041 background traffic volumes ([Exhibit E3](#)) to the Dollar General new trips ([Exhibit F](#)).

#### PART D – INTERSECTION CAPACITY ANALYSIS

The study area intersections were analyzed based on the procedures set forth in the *Highway Capacity Manual, 6th Edition*. 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’. As is required for use in Village of Caledonia, LOS C (25-seconds or less of average vehicle delay) or better was used to define desirable peak hour operating conditions. Note that nearly all other communities in southeast Wisconsin require a LOS D (35-seconds or less of average vehicle delay) or better when defining desirable peak hour operating conditions. The analysis was performed using the existing transportation detail shown in [Exhibit C](#). The driveways were analyzed using the layouts represented in the Dollar General site plan ([Exhibit B](#)).

As shown in the [Tables 2 through 5](#), all movements are expected to operate at LOS C or better conditions through the Year 2021 both without and with the proposed Dollar General. By Year 2041, the intersection is expected to operate at LOS D or better conditions without and with the proposed Dollar General.

Table 2  
Year 2021 Background Traffic Peak Hour Operating Conditions

| Intersection                                             | Peak Hour | Metric  | Level of Service (LOS) per Movement by Approach |      |   |           |      |   |            |   |   |            |   |   | I/S         |
|----------------------------------------------------------|-----------|---------|-------------------------------------------------|------|---|-----------|------|---|------------|---|---|------------|---|---|-------------|
|                                                          |           |         | Eastbound                                       |      |   | Westbound |      |   | Northbound |   |   | Southbound |   |   | LOS & Delay |
|                                                          |           |         | ↗                                               | →    | ↘ | ↙         | ←    | ↖ | ↖          | ↑ | ↗ | ↘          | ↓ | ↙ |             |
| 4 Mile Road & Erie Street<br><i>All-Way Stop Control</i> |           | Lanes → | 1                                               | 1    |   | 1         | 1    |   | 1          |   |   | 1          |   |   |             |
|                                                          | AM        | LOS     | B                                               | C    |   | A         | C    |   | B          |   |   | B          |   |   | C           |
|                                                          |           | Delay   | 10                                              | 21   |   | 9         | 15   |   | 12         |   |   | 14         |   |   | 16          |
|                                                          |           | Queue   | 20'                                             | 135' |   | 20'       | 70'  |   | 20'        |   |   | 60'        |   |   |             |
|                                                          | PM        | LOS     | B                                               | C    |   | A         | C    |   | B          |   |   | B          |   |   |             |
|                                                          |           | Delay   | 11                                              | 20   |   | 9         | 18   |   | 12         |   |   | 13         |   |   | 16          |
|                                                          |           | Queue   | 20'                                             | 125' |   | 20'       | 100' |   | 30'        |   |   | 40'        |   |   |             |

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

Year 2041 Background Traffic Peak Hour Operating Conditions

| Intersection                                             | Peak Hour | Metric  | Level of Service (LOS) per Movement by Approach |      |   |           |      |   |            |   |   |            |   |    | I/S         |
|----------------------------------------------------------|-----------|---------|-------------------------------------------------|------|---|-----------|------|---|------------|---|---|------------|---|----|-------------|
|                                                          |           |         | Eastbound                                       |      |   | Westbound |      |   | Northbound |   |   | Southbound |   |    | LOS & Delay |
|                                                          |           |         | ↗                                               | →    | ↘ | ↙         | ←    | ↖ | ↖          | ↑ | ↗ | ↘          | ↓ | ↙  |             |
| 4 Mile Road & Erie Street<br><i>All-Way Stop Control</i> |           | Lanes → | 1                                               | 1    |   | 1         | 1    |   | 1          |   |   | 1          |   |    |             |
|                                                          | AM        | LOS     | B                                               | D    |   | A         | C    |   | B          |   |   | B          |   |    | C           |
|                                                          |           | Delay   | 10                                              | 25   |   | 9         | 16   |   | 12         |   |   | 14         |   |    | 19          |
|                                                          |           | Queue   | 20'                                             | 170' |   | 20'       | 85'  |   | 25'        |   |   | 50'        |   |    |             |
|                                                          | PM        | LOS     | B                                               | C    |   | A         | C    |   | B          |   |   | B          |   | C  |             |
|                                                          |           | Delay   | 10                                              | 24   |   | 9         | 20   |   | 13         |   |   | 13         |   | 19 |             |
|                                                          |           | Queue   | 20'                                             | 160' |   | 20'       | 120' |   | 35'        |   |   | 35'        |   |    |             |

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

**Table 4**  
**Year 2021 Build Traffic Peak Hour Operating Conditions**

| Intersection                                                 | Peak Hour | Metric  | Level of Service (LOS) per Movement by Approach |      |     |           |     |     |            |     |     |            |   |   | I/S         |
|--------------------------------------------------------------|-----------|---------|-------------------------------------------------|------|-----|-----------|-----|-----|------------|-----|-----|------------|---|---|-------------|
|                                                              |           |         | Eastbound                                       |      |     | Westbound |     |     | Northbound |     |     | Southbound |   |   | LOS & Delay |
|                                                              |           |         | ↗                                               | →    | ↘   | ↙         | ←   | ↖   | ↖          | ↑   | ↗   | ↘          | ↓ | ↙ |             |
| 4 Mile Road & Erie Street<br><i>All-Way Stop Control</i>     |           | Lanes → | 1                                               | 1    |     | 1         | 1   |     | 1          |     |     | 1          |   |   |             |
|                                                              | AM        | LOS     | B                                               | C    |     | A         | B   |     | B          |     |     | B          |   |   | B           |
|                                                              |           | Delay   | 10                                              | 18   |     | 9         | 13  |     | 11         |     |     | 11         |   |   | 14          |
|                                                              |           | Queue   | 20'                                             | 120' |     | 20'       | 60' |     | 20'        |     |     | 35'        |   |   |             |
|                                                              | PM        | LOS     | B                                               | C    |     | A         | C   |     | B          |     |     | B          |   |   | C           |
|                                                              |           | Delay   | 10                                              | 18   |     | 9         | 15  |     | 12         |     |     | 11         |   |   | 15          |
| Queue                                                        |           | 20'     | 120'                                            |      | 20' | 75'       |     | 30' |            |     | 25' |            |   |   |             |
| 4 Mile Road & East Driveway<br><i>Stop Sign Control (NB)</i> |           | Lanes → | -                                               | 1    |     | 1         | -   |     | -          | -   | 1   | -          | - | - |             |
|                                                              | AM        | LOS     | -                                               | *    |     | A         | -   |     | -          | -   | B   | -          | - | - | A           |
|                                                              |           | Delay   | -                                               | *    |     | 8         | -   |     | -          | -   | 10  | -          | - | - | 0           |
|                                                              |           | Queue   | -                                               | *    |     | 20'       | -   |     | -          | -   | 20' | -          | - | - |             |
|                                                              | PM        | LOS     | -                                               | *    |     | A         | -   |     | -          | -   | B   | -          | - | - | A           |
|                                                              |           | Delay   | -                                               | *    |     | 7         | -   |     | -          | -   | 10  | -          | - | - | 0           |
| Queue                                                        |           | -       | *                                               |      | 20' | -         |     | -   | -          | 20' | -   | -          | - |   |             |
| Erie Street & South Driveway<br><i>Stop Sign Control</i>     |           | Lanes → | -                                               | -    | -   | 1         | -   | 1   | -          | 1   |     | 1          | - |   |             |
|                                                              | AM        | LOS     | -                                               | -    | -   | A         | -   | A   | -          | *   |     | A          | - |   | A           |
|                                                              |           | Delay   | -                                               | -    | -   | 9         | -   | 8   | -          | *   |     | 7          | - |   | 0           |
|                                                              |           | Queue   | -                                               | -    | -   | 20'       | -   | 20' | -          | *   |     | 20'        | - |   |             |
|                                                              | PM        | LOS     | -                                               | -    | -   | B         | -   | A   | -          | *   |     | A          | - |   | A           |
|                                                              |           | Delay   | -                                               | -    | -   | 10        | -   | 9   | -          | *   |     | 7          | - |   | 0           |
| Queue                                                        |           | -       | -                                               | -    | 20' | -         | 20' | -   | *          |     | 20' | -          |   |   |             |

(-) indicates a movement that is prohibited or does not exist; (\*) indicates a freeflow movement.

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

**Table 5**  
**Year 2041 Build Traffic Peak Hour Operating Conditions**

| Intersection                                                 | Peak Hour | Metric  | Level of Service (LOS) per Movement by Approach |      |     |           |     |     |            |     |     |            |   |   | I/S         |
|--------------------------------------------------------------|-----------|---------|-------------------------------------------------|------|-----|-----------|-----|-----|------------|-----|-----|------------|---|---|-------------|
|                                                              |           |         | Eastbound                                       |      |     | Westbound |     |     | Northbound |     |     | Southbound |   |   | LOS & Delay |
|                                                              |           |         | ↗                                               | →    | ↘   | ↙         | ←   | ↖   | ↖          | ↑   | ↗   | ↘          | ↓ | ↙ |             |
| 4 Mile Road & Erie Street<br><i>All-Way Stop Control</i>     |           | Lanes → | 1                                               | 1    |     | 1         | 1   |     | 1          |     |     | 1          |   |   |             |
|                                                              | AM        | LOS     | B                                               | D    |     | B         | C   |     | B          |     |     | B          |   |   | C<br>19     |
|                                                              |           | Delay   | 10                                              | 27   |     | 10        | 17  |     | 12         |     |     | 14         |   |   |             |
|                                                              |           | Queue   | 20'                                             | 180' |     | 20'       | 85' |     | 25'        |     |     | 55'        |   |   |             |
|                                                              | PM        | LOS     | B                                               | D    |     | B         | C   |     | B          |     |     | B          |   |   | C<br>21     |
|                                                              |           | Delay   | 10                                              | 28   |     | 10        | 21  |     | 14         |     |     | 13         |   |   |             |
| Queue                                                        |           | 20'     | 180'                                            |      | 20' | 125'      |     | 45' |            |     | 40' |            |   |   |             |
| 4 Mile Road & East Driveway<br><i>Stop Sign Control (NB)</i> |           | Lanes → | -                                               | 1    |     | 1         | -   |     | -          | -   | 1   | -          | - | - |             |
|                                                              | AM        | LOS     | -                                               | *    |     | A         | -   |     | -          | -   | B   | -          | - | - | A<br>0      |
|                                                              |           | Delay   | -                                               | *    |     | 8         | -   |     | -          | -   | 11  | -          | - | - |             |
|                                                              |           | Queue   | -                                               | *    |     | 20'       | -   |     | -          | -   | 20' | -          | - | - |             |
|                                                              | PM        | LOS     | -                                               | *    |     | A         | -   |     | -          | -   | B   | -          | - | - | A<br>0      |
|                                                              |           | Delay   | -                                               | *    |     | 8         | -   |     | -          | -   | 10  | -          | - | - |             |
| Queue                                                        |           | -       | *                                               |      | 20' | -         |     | -   | -          | 20' | -   | -          | - |   |             |
| Erie Street & South Driveway<br><i>Stop Sign Control</i>     |           | Lanes → | -                                               | -    | -   | 1         | -   | 1   | -          | 1   |     | 1          | - |   |             |
|                                                              | AM        | LOS     | -                                               | -    | -   | B         | -   | A   | -          | *   |     | A          | - |   | A<br>0      |
|                                                              |           | Delay   | -                                               | -    | -   | 10        | -   | 8   | -          | *   |     | 7          | - |   |             |
|                                                              |           | Queue   | -                                               | -    | -   | 20'       | -   | 20' | -          | *   |     | 20'        | - |   |             |
|                                                              | PM        | LOS     | -                                               | -    | -   | B         | -   | A   | -          | *   |     | A          | - |   | A<br>0      |
|                                                              |           | Delay   | -                                               | -    | -   | 11        | -   | 9   | -          | *   |     | 7          | - |   |             |
| Queue                                                        |           | -       | -                                               | -    | 20' | -         | 20' | -   | *          |     | 20' | -          |   |   |             |

(-) indicates a movement that is prohibited or does not exist; (\*) indicates a freeflow movement.

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

## **PART E – RECOMMENDATION & CONCLUSION**

Modifications to accommodate the Dollar General are outlined below. *Recommended modifications are for jurisdictional consideration and are not legally binding. The Village of Caledonia reserves the right to determine alternative solutions.*

### 4 Mile Road & East Driveway

- Construct the East Driveway to allow for left-in/right-in/right-out operations (no left-out). No dedicated turn lanes are necessary along 4 Mile Road.
- Install a stop sign on the driveway approach to 4 Mile Road.

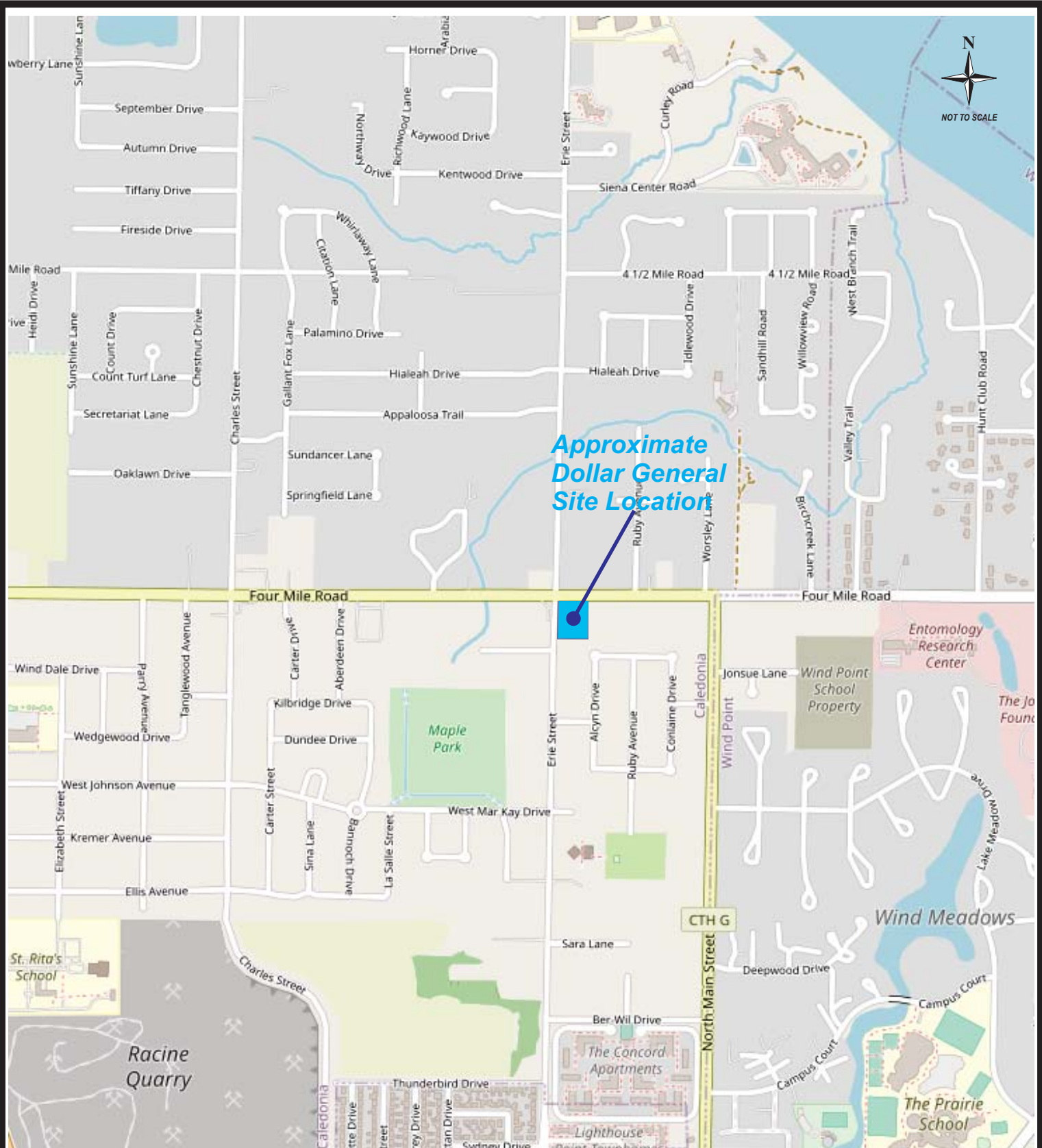
### Erie Street & South Driveway

- Construct the South Driveway to allow for all movements. No dedicated turn lanes are necessary along Erie Street. Construct separate left-turn and right-turn lanes on the driveway approach to Erie Street.
- Install a stop sign on the driveway approach to Erie Street.

As previously outlined, all movements are expected to operate at LOS C or better conditions through the Year 2021 both without and with the proposed Dollar General (Tables 2 & 4) – the Village’s preferred operation. The movements may be expected to deteriorate to LOS D or better by Year 2041 both without and with the proposed Dollar General (Tables 3 & 5) – beyond the Village’s preferred operation but well within the operations typically expected for other communities in southeast Wisconsin. Because this operation is not expected for another 20 years, because it occurs without Dollar General, and because the operation is 3-seconds of average vehicle delay beyond the LOS C/D threshold, TADI has no additional recommendations for construction at this time. If the Village wishes to obtain LOS C or better operations, 100-foot eastbound and westbound right-turn lanes may be constructed along 4 Mile Road regardless of whether Dollar General is constructed. Outputs with the optional right-turn lanes are included in the report appendix.

Should any questions or comments arise, please feel free to contact Michael May, P.E. PTOE of TADI at 414-807-1912 or [mmay@tadi-us.com](mailto:mmay@tadi-us.com).



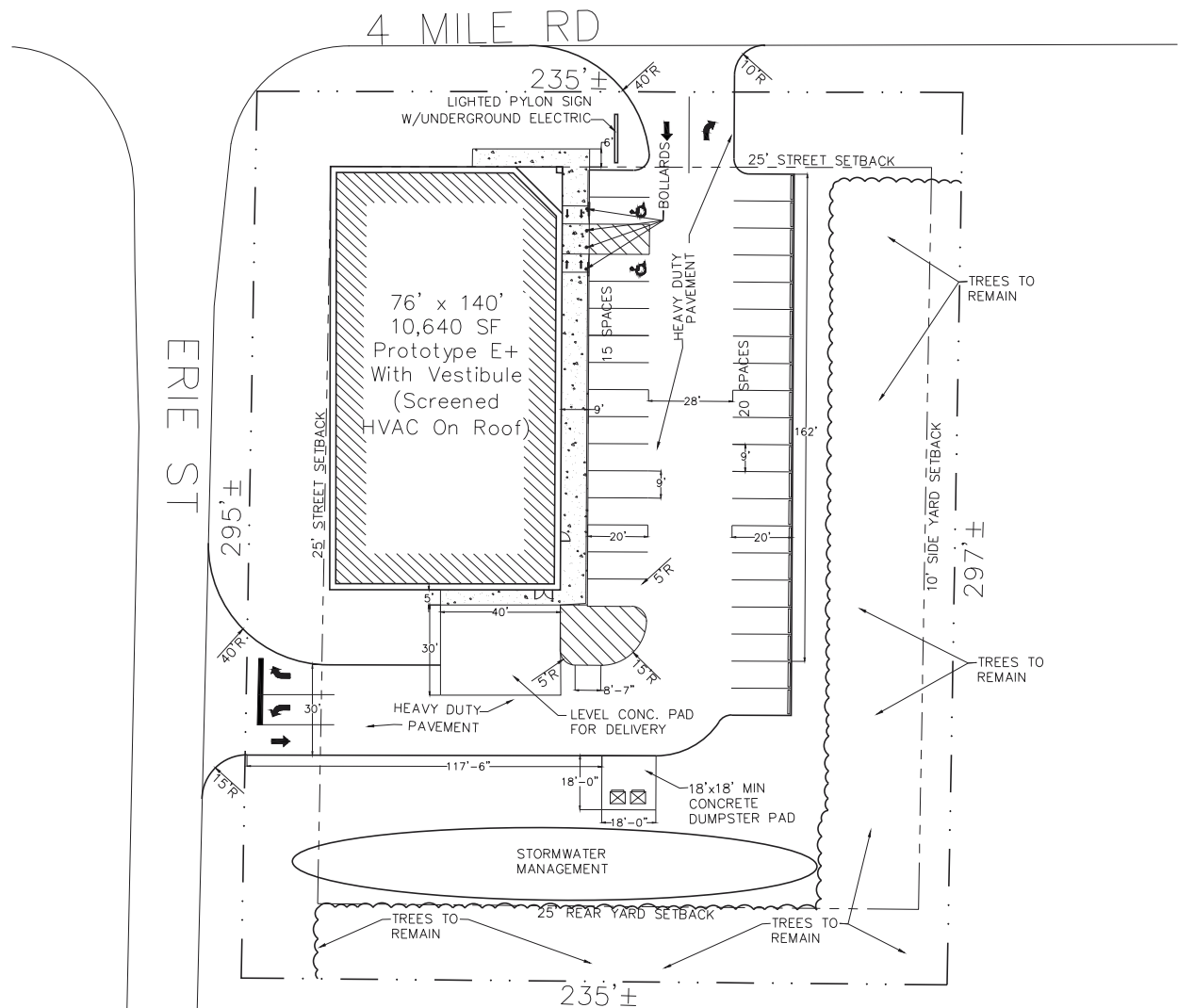




| PRELIMINARY SITE PLAN |              | CITY, STATE - STREET:<br>Racine, WI 53402 - 4 Mile Rd & Erie St |                             |
|-----------------------|--------------|-----------------------------------------------------------------|-----------------------------|
| PROTOTYPE:            | E+           | DEVELOPER                                                       | DESIGNER                    |
| BLDG/SALES SF:        | 10,640/8,496 | COMPANY: MIDWEST W, LLC                                         | COMPANY: POINT OF BEGINNING |
| ACREAGE:              | 1.59±        | NAME: PETER OLESZCZUK                                           | NAME: JAMES LUNDBERG, P.E.  |
| PARKING SPACES:       | 35           | PHONE #: 616-842-2030                                           | PHONE #: 715-344-9999       |

DISTANCE FROM BLDG TO ROAD: 4 MILE RD : 40'

EXHIBIT B-1







#### SITE SUMMARY

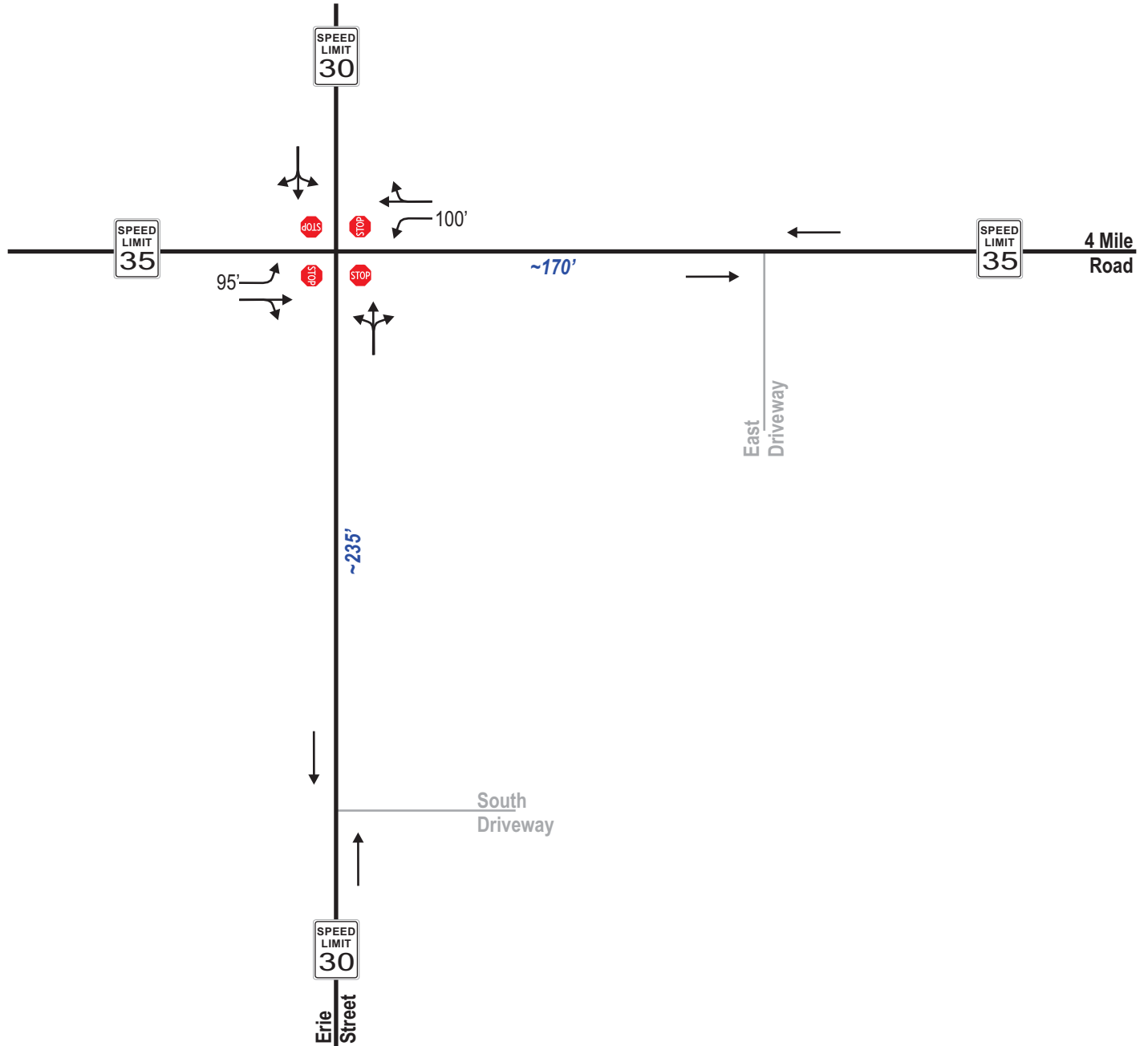
|                                                   |                                                                            |
|---------------------------------------------------|----------------------------------------------------------------------------|
| <b>SITE AREA:</b> 69,435 SF± (1.59± AC)           | <b>PARKING:</b>                                                            |
| <b>SITE DIMENSIONS:</b> 235'x296'                 | REQUIRED: < 37 SPACES<br>PROVIDED: 35 SPACES                               |
| <b>ZONING:</b> B-1 NEIGHBORHOOD BUSINESS DISTRICT | <b>IMPERVIOUS COVERAGE:</b>                                                |
|                                                   | REQUIRED: N/A                                                              |
| <b>BUILDING SETBACKS:</b>                         | <b>LANDSCAPING:</b> PROVIDE LANDSCAPE PER SECTION 16-3-3 OF VILLAGE CODE   |
| FRONT: 25'                                        |                                                                            |
| SIDE: 10'                                         |                                                                            |
| REAR: 25'                                         |                                                                            |
| <b>BUILDING AREA:</b> 10,640 SF                   | <b>STORMWATER DETENTION REQUIRED:</b>                                      |
| <b>BLDG HEIGHT (MAX.):</b> 35'                    | COMPLY WITH WI CHAPTER NR161 REQUIREMENTS & SECTION 9-2-10 OF VILLAGE CODE |
| <b>BUILDING COVERAGE:</b> N/A                     | <b>ARCHITECTURE:</b>                                                       |
|                                                   | PER 16-3-2 OF VILLAGE ZONING CODE                                          |



SCALE = 1"=50'

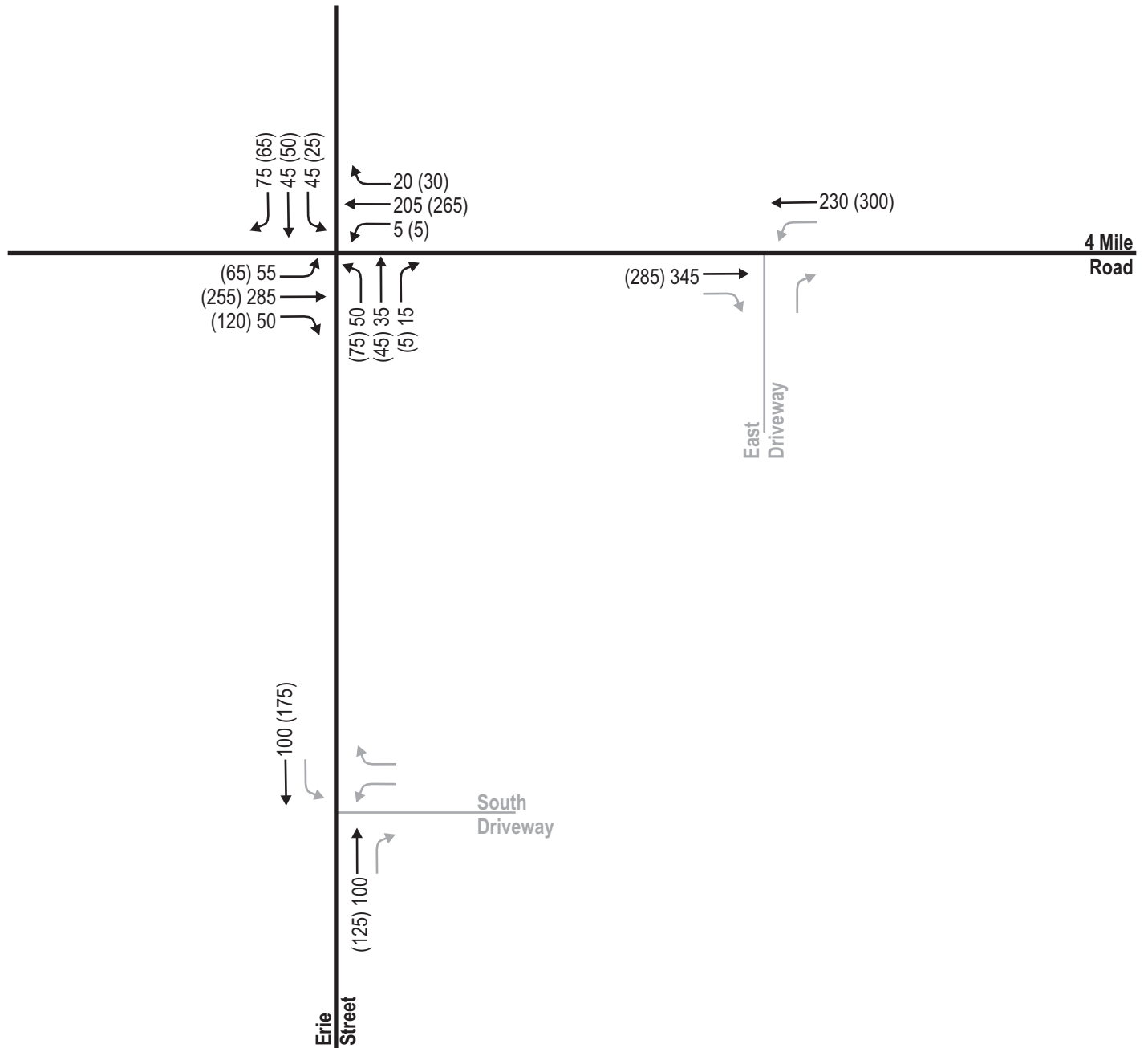
# LEGEND

-  Stop Sign
-  Existing Lane Configuration
-  Existing Turn Bay Length (In Feet)
-  Distance Between Intersections (C-C, in Feet)



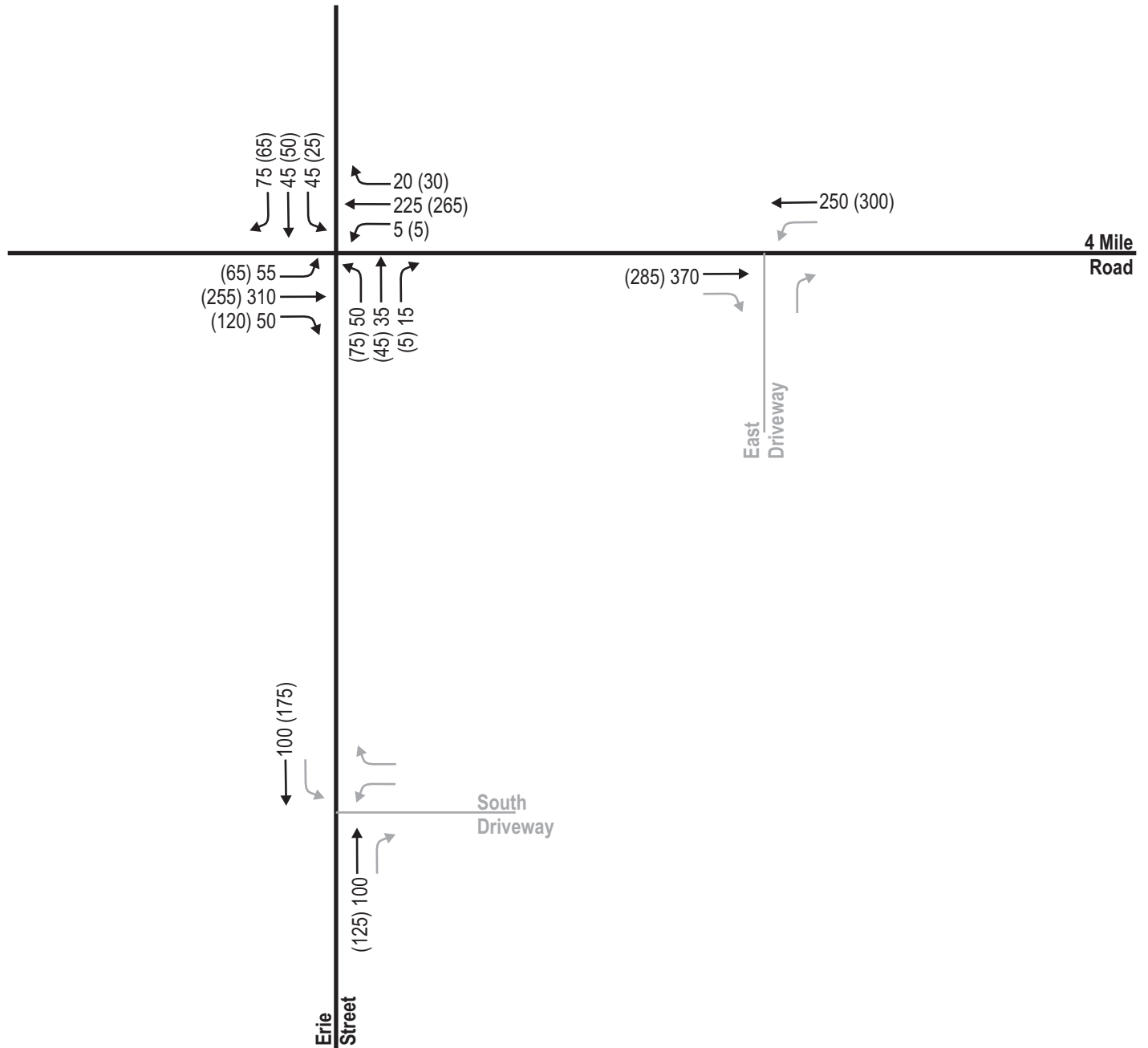
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour





**Intersection: Erie Street and 4 Mile Road**

**Northbound (Top) Traffic:**

- Left Turn: 35 (25)
- Through/Right Turn: 20 (10)
- Left Turn from 4 Mile Road: 10 (25)

**Southbound (Bottom) Traffic:**

- Left Turn: 20 (10)
- Through/Right Turn: 20 (5)
- Left Turn from 4 Mile Road: 10 (25)

**Eastbound (Right) Traffic:**

- Left Turn: 15 (25)
- Through/Right Turn: 25

**Westbound (Left) Traffic:**

- Left Turn: 40 (10)
- Through/Right Turn: 20 (10)

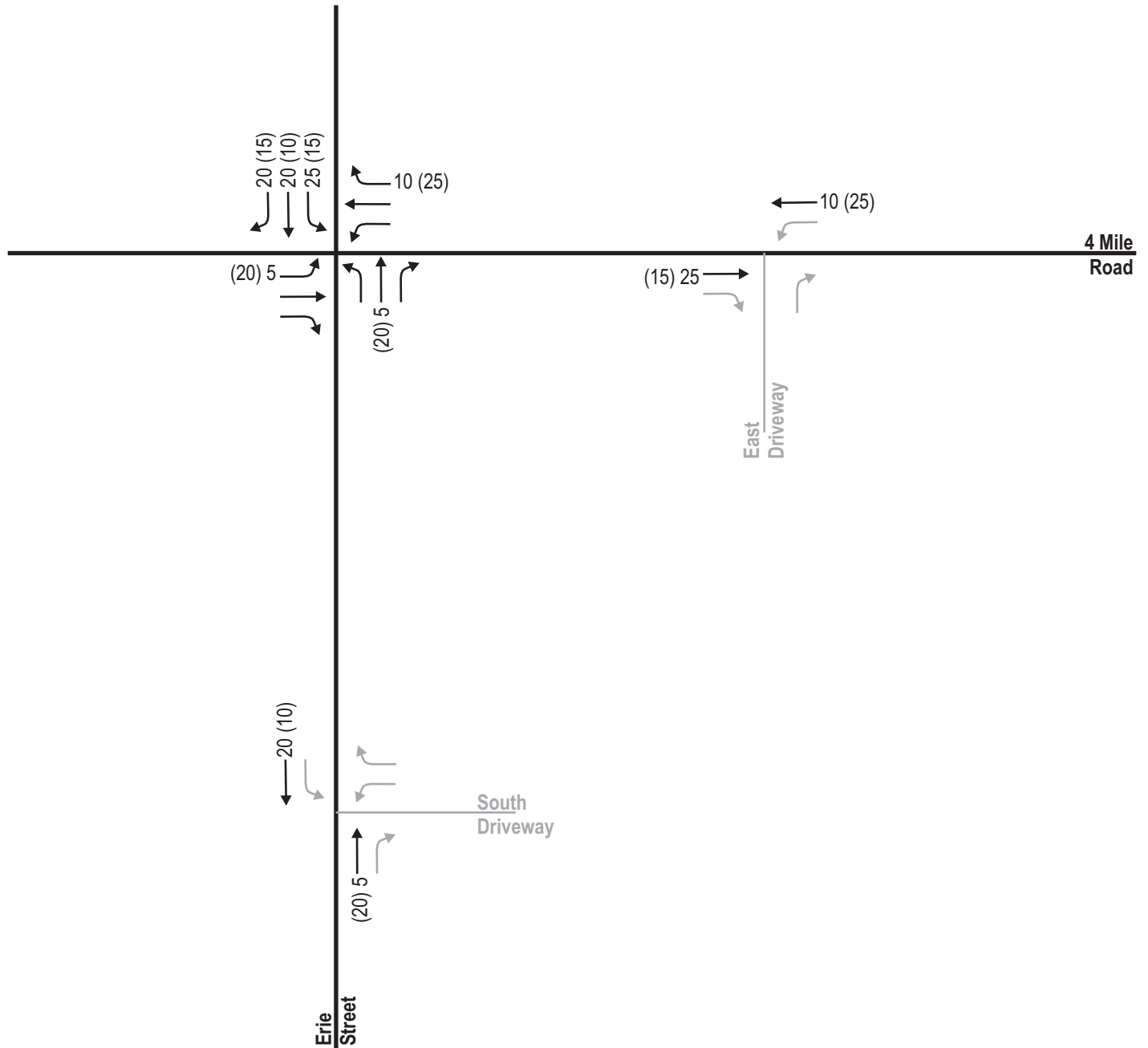
**Driveway Traffic:**

- South Driveway: 20 (5)
- East Driveway: 10 (25)

**CALEDONIA, WISCONSIN**

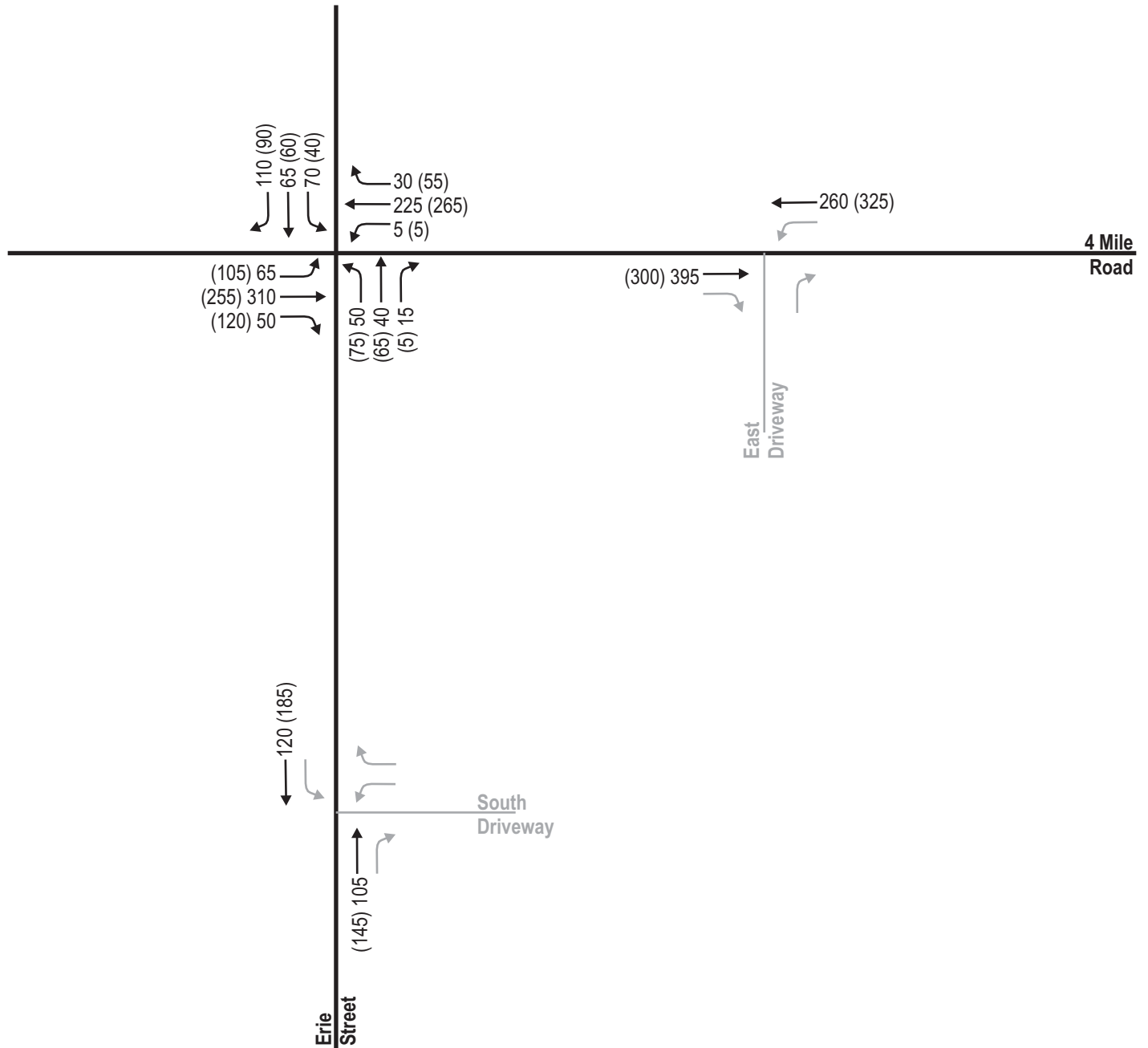
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



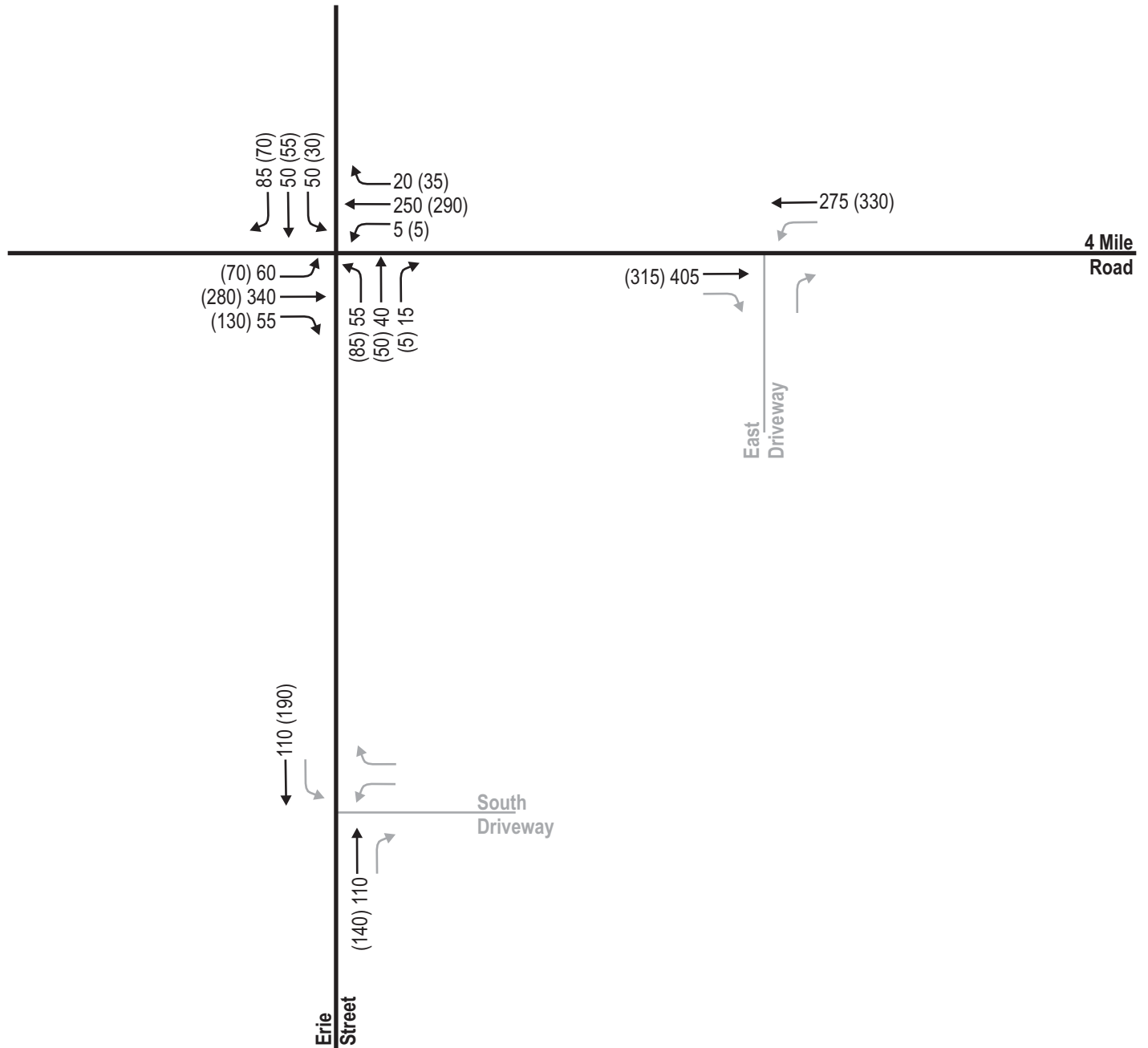
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



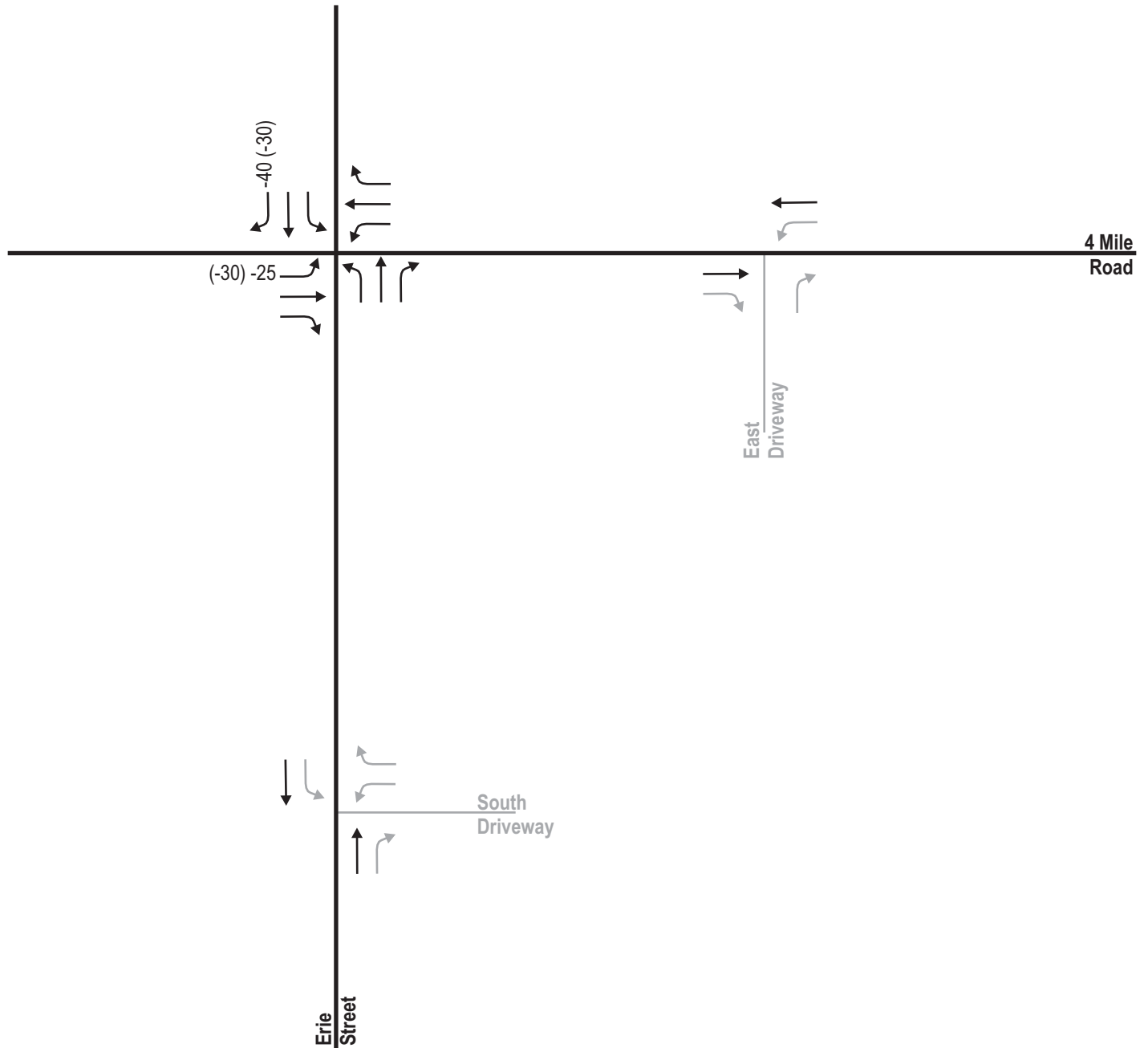
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



## LEGEND

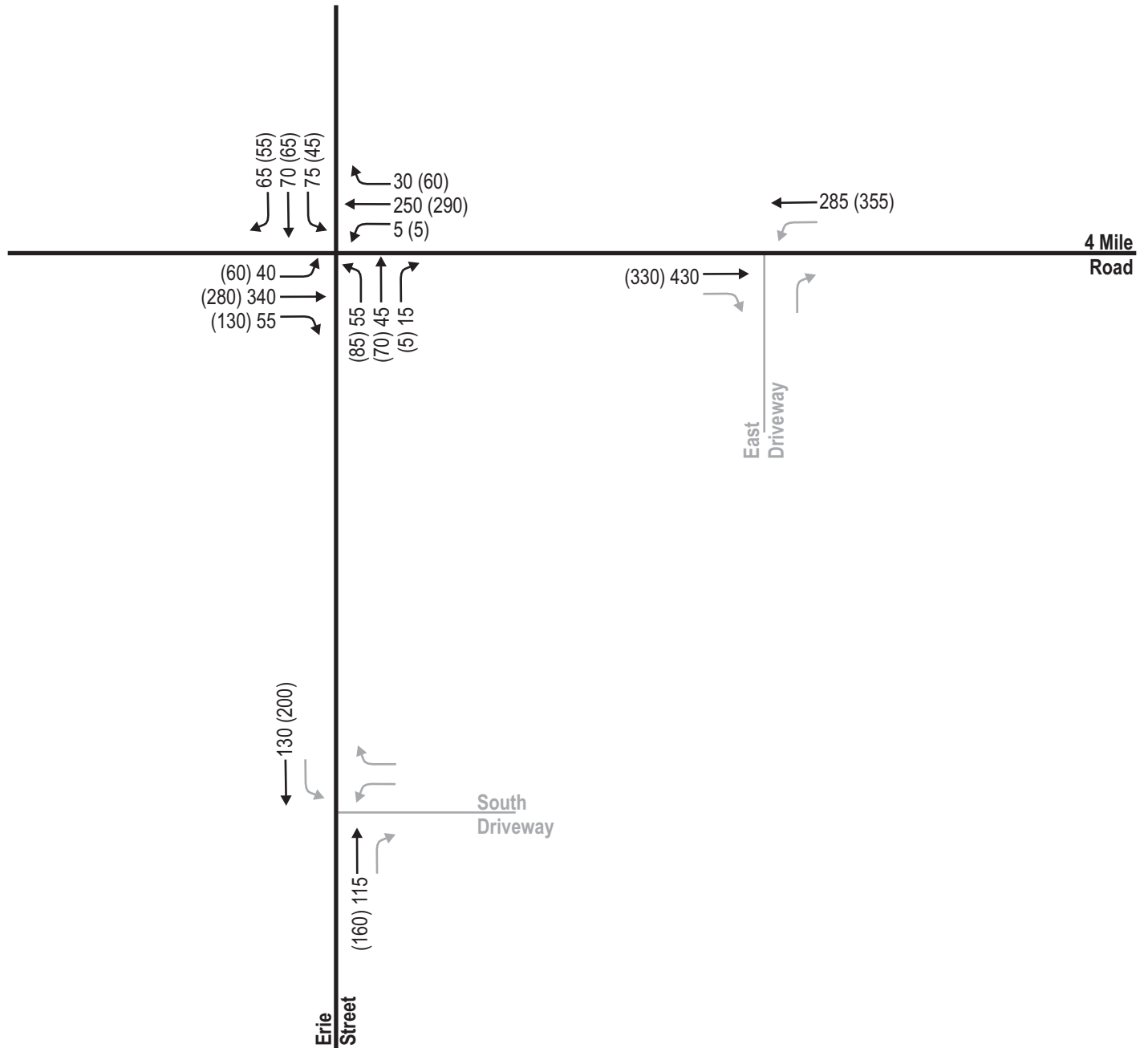
- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour





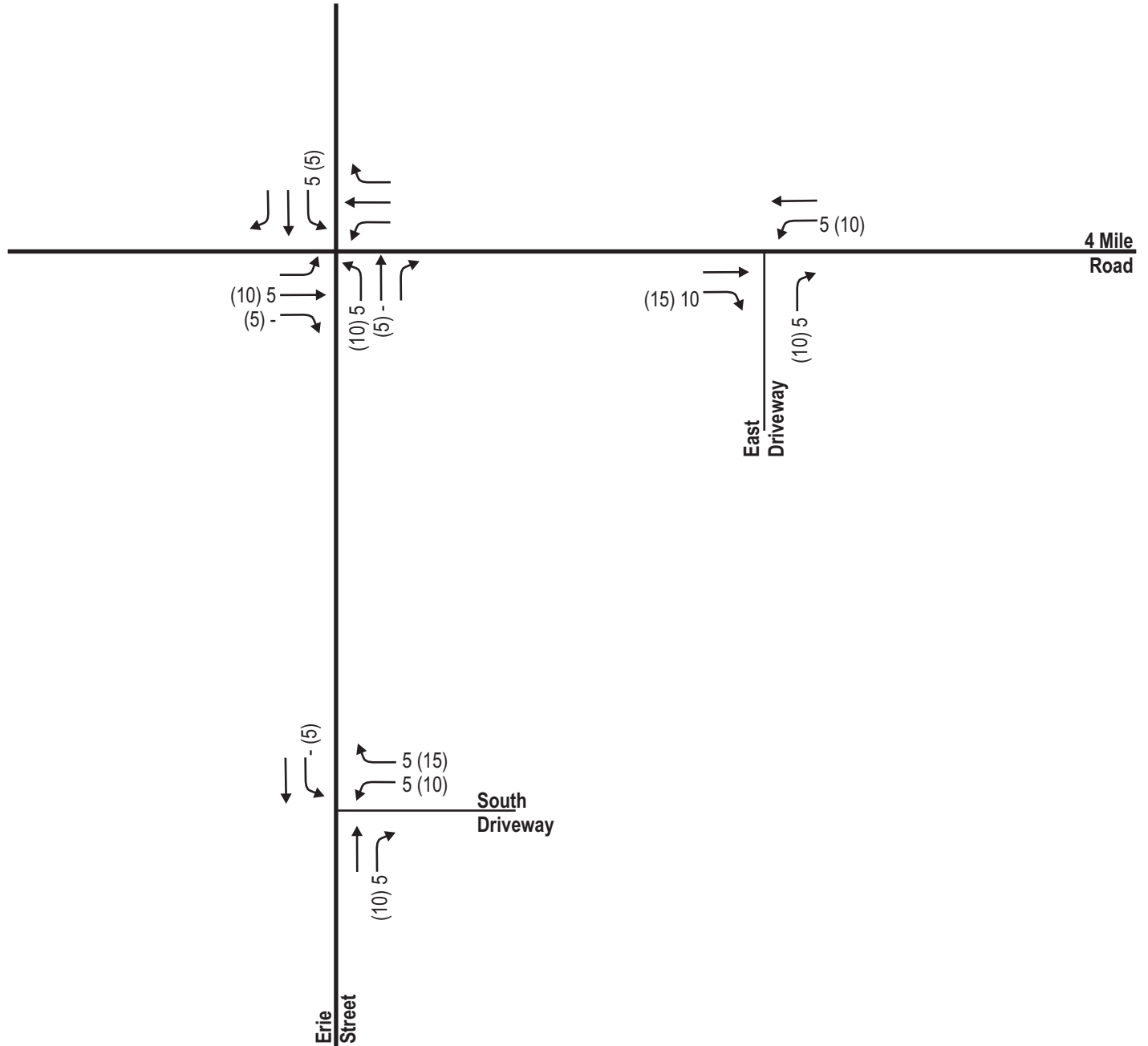
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



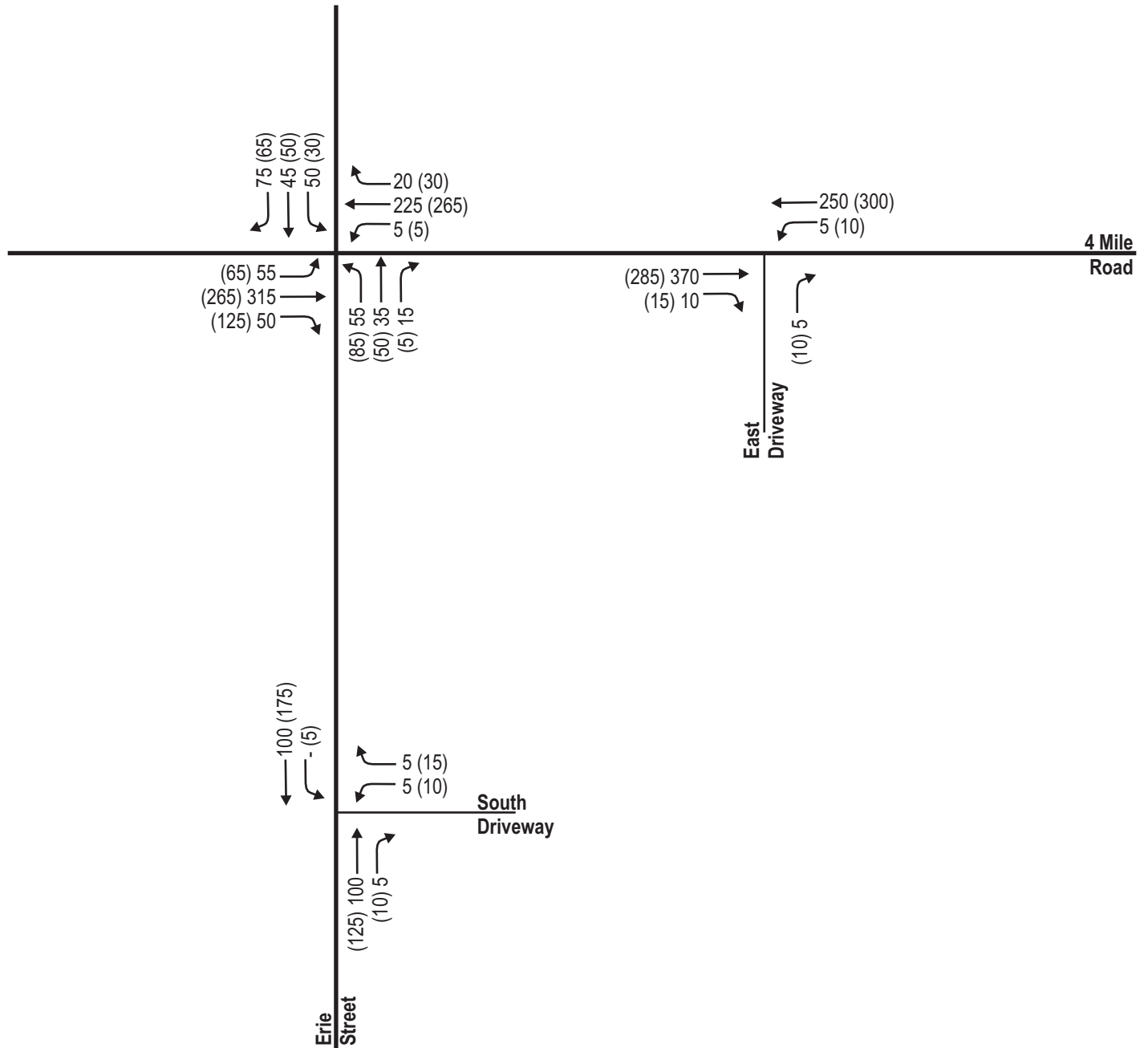
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



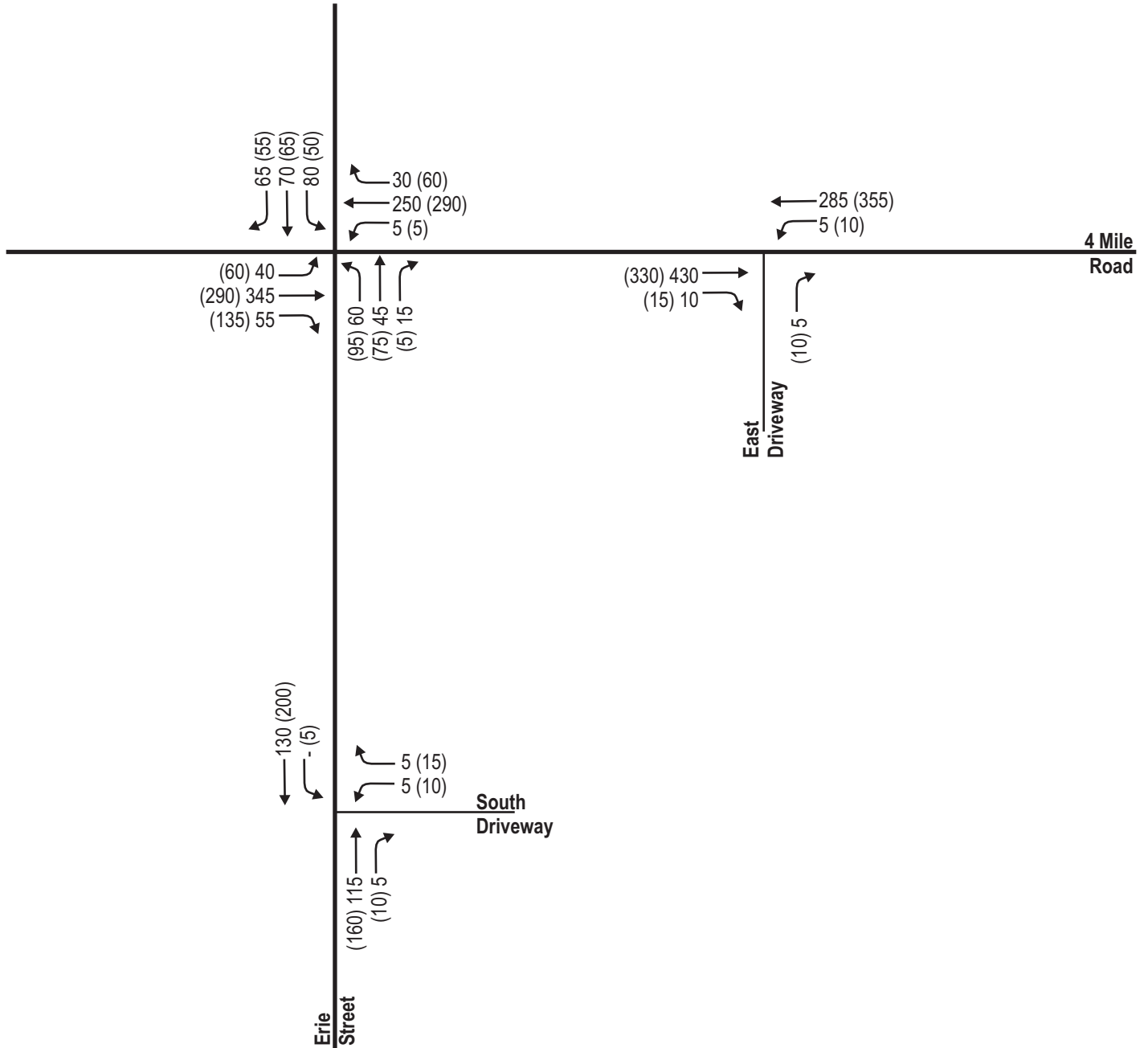
## LEGEND

- XX Weekday Morning Peak Hour (7:45-8:45AM)
- (XX) Weekday Evening Peak Hour (3:00-4:00PM)
- Fewer than 2 vehicles per hour



# LEGEND

XX Weekday Morning Peak Hour (7:45-8:45AM)  
 (XX) Weekday Evening Peak Hour (3:00-4:00PM)  
 - Fewer than 2 vehicles per hour



# APPENDIX



## **Traffic Counts**

# Intersection Traffic Volume Report

| Count Basics                   |                            | Version 2013.J4.1 |                    | Page 1 of 13 |
|--------------------------------|----------------------------|-------------------|--------------------|--------------|
| Start Date:                    | Monday, September 13, 2021 | Weekday           | Schools in Session |              |
| Total Number of Hours Counted: | 6                          | Non-Holiday       | No Special Events  |              |

## Base Information, Observed (6) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Erie Street and 4 Mile Road**

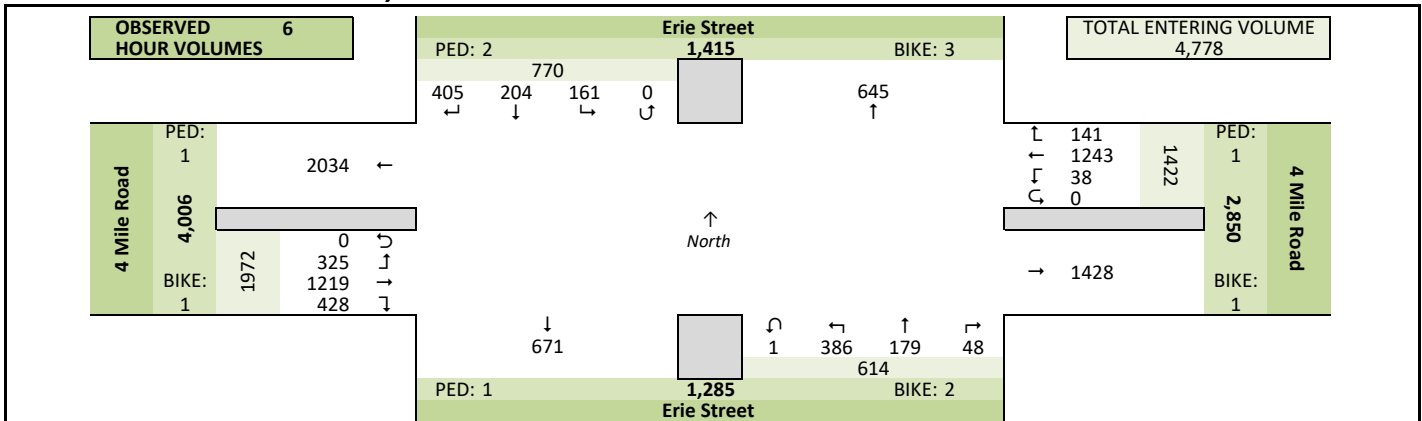
### Site Information

|                              |                                           |               |    |
|------------------------------|-------------------------------------------|---------------|----|
| Municipality                 | Village of Caledonia                      |               |    |
| County                       | Racine                                    | WisDOT Region | SE |
| Traffic Control              | All-Way Stop                              |               |    |
| Roadway Names                | North Direction                           | ↑             |    |
| North Leg                    | Erie Street                               |               |    |
| East Leg                     | 4 Mile Road                               |               |    |
| South Leg                    | Erie Street                               |               |    |
| West Leg                     | 4 Mile Road                               |               |    |
| Special Considerations       |                                           |               |    |
| Schools                      | In Session                                |               |    |
| Holidays                     | None                                      |               |    |
| Special Events               | None                                      |               |    |
| Special Pedestrians Observed |                                           |               |    |
|                              | Pre-school children                       | None          |    |
|                              | Elementry school age children             | None          |    |
|                              | Visually impaired (white cane/helper dog) | None          |    |
|                              | Elderly/disabled (except wheelchairs)     | None          |    |
|                              | Wheelchairs/electric scooters             | None          |    |
|                              | Other (describe)                          | None          |    |

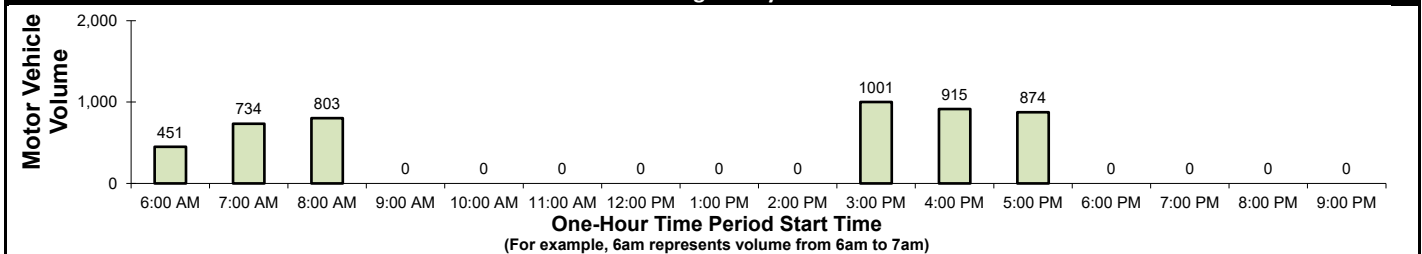
### Count Information

|                                                  |                           |                                  |                        |                   |
|--------------------------------------------------|---------------------------|----------------------------------|------------------------|-------------------|
| Hrs Counted: 6:00 AM-9:00 AM and 3:00 PM-6:00 PM |                           |                                  |                        |                   |
| 1st Day of Count                                 |                           | Monday, September 13, 2021       |                        | Weather           |
| AM Peak Period                                   |                           | Tuesday, September 14, 2021      |                        | Clear & Dry       |
| Midday Peak Period                               |                           | Tuesday, September 14, 2021      |                        | Clear & Dry       |
| PM Peak Period                                   |                           | Monday, September 13, 2021       |                        | Clear & Dry       |
| Calculated Peak Hours                            |                           |                                  |                        |                   |
|                                                  | AM                        | 7:45-8:45am                      | MD                     |                   |
|                                                  |                           |                                  |                        | PM 3:00-4:00pm    |
| Peak Hours Selected for Analysis                 |                           |                                  |                        |                   |
|                                                  | AM                        | 7:45-8:45am                      | MD                     |                   |
|                                                  |                           |                                  |                        | PM 3:00-4:00pm    |
| Daily/Seasonal Adjustment Group                  |                           | (2) Urban Arterials & Collectors |                        |                   |
| Count Expansion Group                            |                           | (2) Urban Arterials & Collectors |                        |                   |
| Daily/Seasonal Adjustment Factor                 |                           | 0.919                            | Count Expansion Factor | 2.520             |
| Company Name                                     |                           | TADI, Inc.                       |                        | Manual Adj. 1.000 |
| Observers                                        | AM Peak Period            | Wendy Picard                     |                        |                   |
|                                                  | Midday Peak Period        | None                             |                        |                   |
|                                                  | PM Peak Period            | Wendy Picard                     |                        |                   |
| Comments                                         | 2019 DOT Seasonal Factors |                                  |                        |                   |

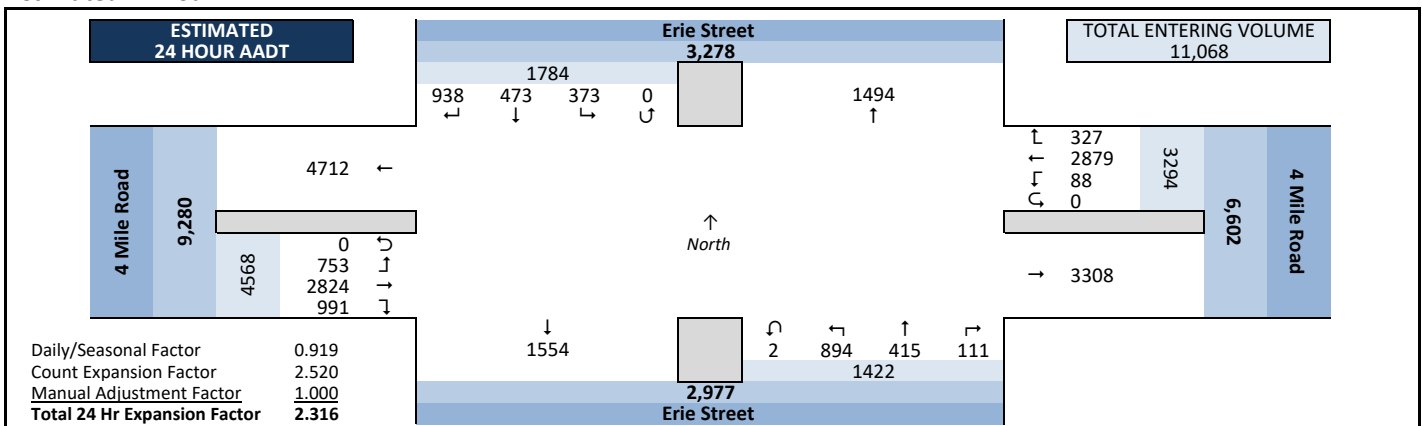
### Observed 6 Hour Volume Summary



### Total Entering Hourly Volume



### Estimated 24 Hour AADT



|                              |       |
|------------------------------|-------|
| Daily/Seasonal Factor        | 0.919 |
| Count Expansion Factor       | 2.520 |
| Manual Adjustment Factor     | 1.000 |
| Total 24 Hr Expansion Factor | 2.316 |

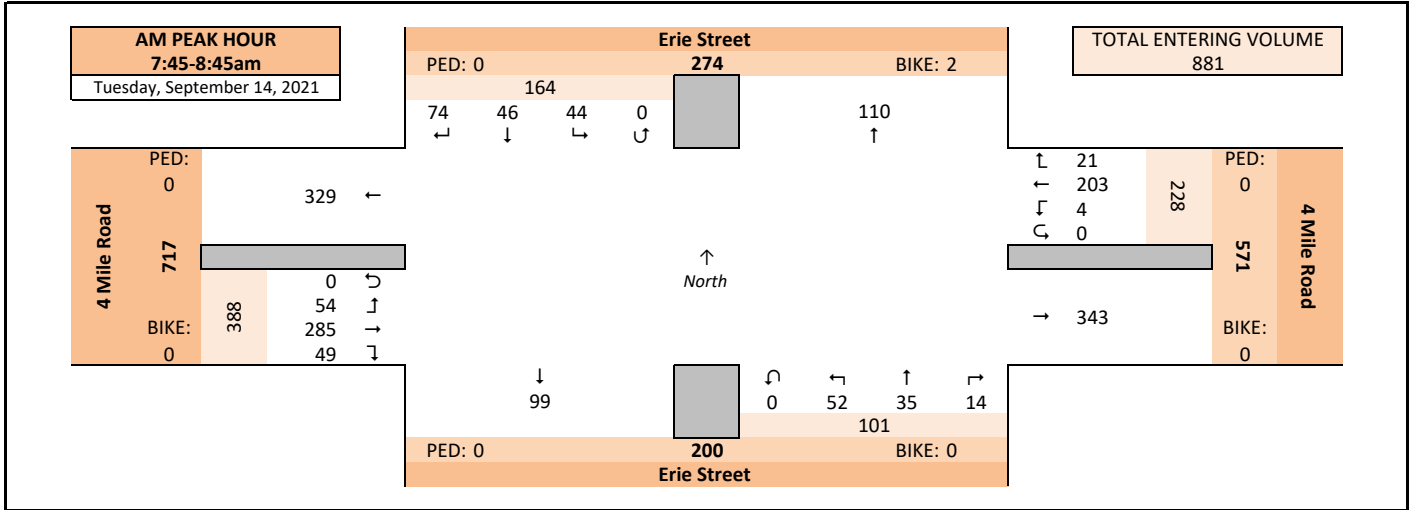
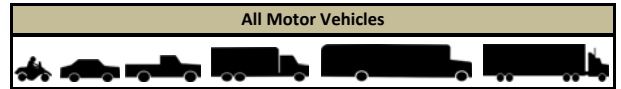
# Intersection Traffic Volume Report

| Count Basics                   |                            |             | Page 2 of 13       |
|--------------------------------|----------------------------|-------------|--------------------|
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |

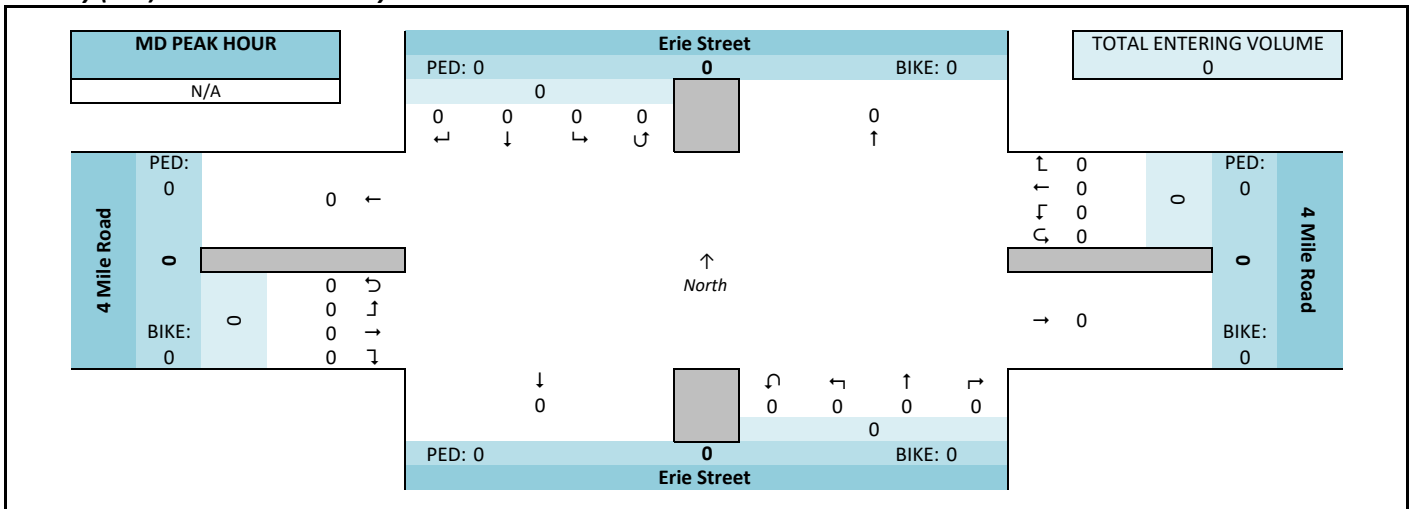
## Peak Hour Volume Graphical Summary

### Erie Street and 4 Mile Road

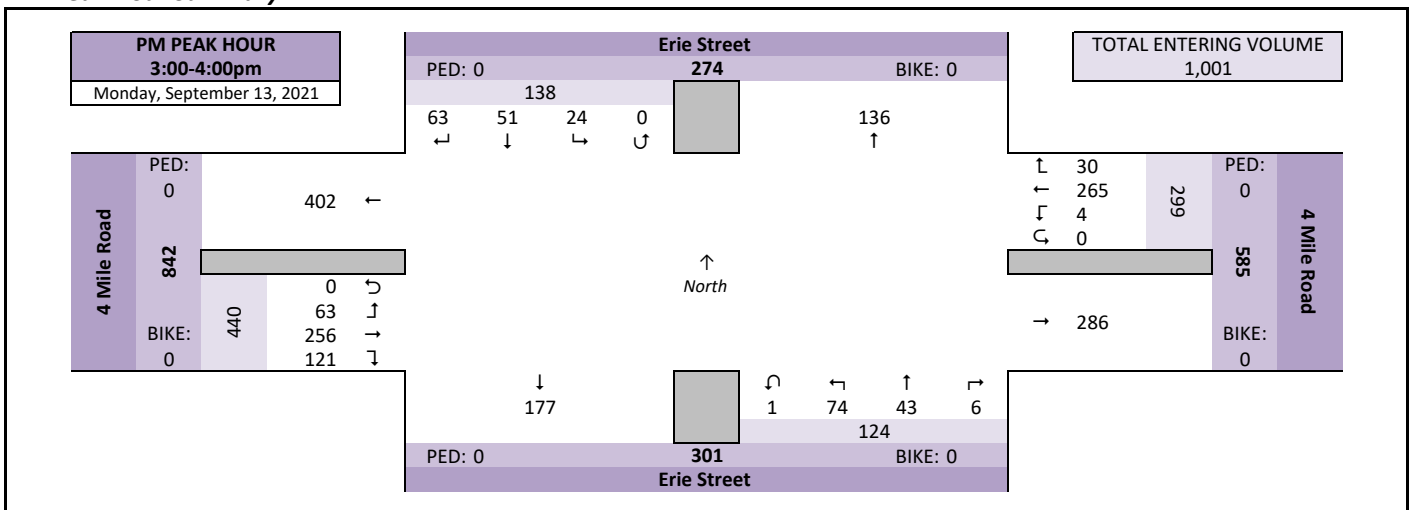
#### AM Peak Hour Summary



#### Midday (MD) Peak Hour Summary



#### PM Peak Hour Summary



***Erie Street and 4 Mile Road***

[illegible]

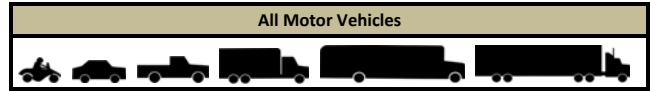
# Intersection Traffic Volume Report

## Hourly Volume Summary - Motor Vehicle Data

Erie Street and 4 Mile Road

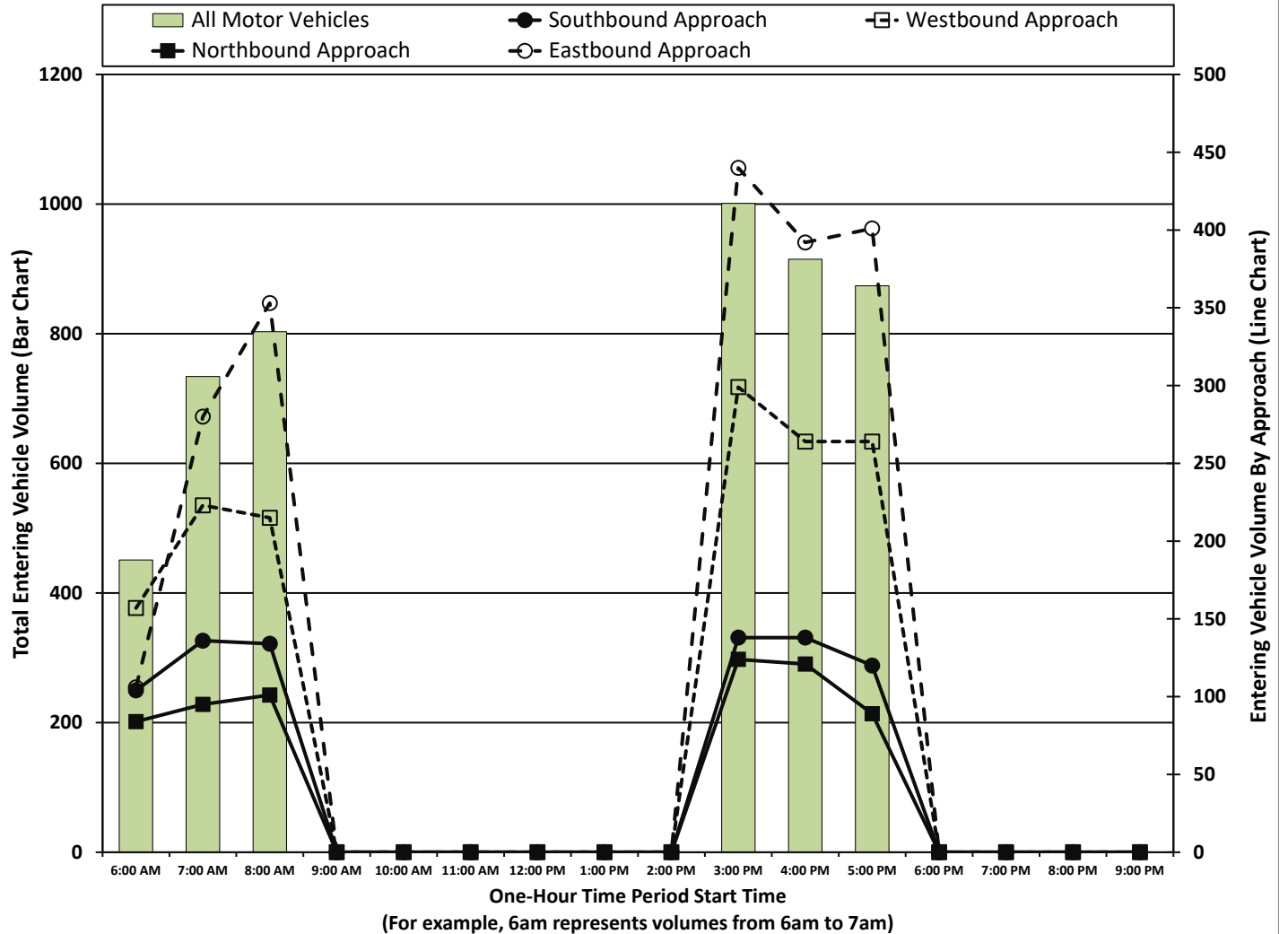
### One-Hour Motor Vehicle Data

| Count Basics                   |                            |             | Page 4 of 13       |
|--------------------------------|----------------------------|-------------|--------------------|
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |



| One-Hour<br>Time Period<br>Start Time | From North  |      |      |      |       | From East   |      |      |      |       | From South  |      |      |      |       | From West   |      |      |      |       | Total<br>Vehicle<br>Volume | Directional<br>Volume Totals |      |     |
|---------------------------------------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|----------------------------|------------------------------|------|-----|
|                                       | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       |                            |                              |      |     |
|                                       | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total |                            | E/W                          | N/S  |     |
| AM                                    | 6:00 AM     | 63   | 18   | 23   | 0     | 104         | 12   | 141  | 4    | 0     | 157         | 5    | 15   | 64   | 0     | 84          | 23   | 59   | 24   | 0     | 106                        | 451                          | 263  | 188 |
|                                       | 7:00 AM     | 71   | 30   | 35   | 0     | 136         | 24   | 194  | 5    | 0     | 223         | 4    | 22   | 69   | 0     | 95          | 42   | 196  | 42   | 0     | 280                        | 734                          | 503  | 231 |
|                                       | 8:00 AM     | 68   | 34   | 32   | 0     | 134         | 19   | 192  | 4    | 0     | 215         | 12   | 30   | 59   | 0     | 101         | 55   | 249  | 49   | 0     | 353                        | 803                          | 568  | 235 |
|                                       | 9:00 AM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
| MD                                    | 10:00 AM    | 0    | 0    | 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                            | 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                            | 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                            | 0    | 0   |
| PM                                    | 2:00 PM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
|                                       | 3:00 PM     | 63   | 51   | 24   | 0     | 138         | 30   | 265  | 4    | 0     | 299         | 6    | 43   | 74   | 1     | 124         | 121  | 256  | 63   | 0     | 440                        | 1001                         | 739  | 262 |
|                                       | 4:00 PM     | 72   | 36   | 30   | 0     | 138         | 26   | 226  | 12   | 0     | 264         | 13   | 34   | 74   | 0     | 121         | 88   | 228  | 76   | 0     | 392                        | 915                          | 656  | 259 |
|                                       | 5:00 PM     | 68   | 35   | 17   | 0     | 120         | 30   | 225  | 9    | 0     | 264         | 8    | 35   | 46   | 0     | 89          | 99   | 231  | 71   | 0     | 401                        | 874                          | 665  | 209 |
|                                       | 6:00 PM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
|                                       | 7:00 PM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
|                                       | 8:00 PM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
|                                       | 9:00 PM     | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0           | 0    | 0    | 0    | 0     | 0                          | 0                            | 0    | 0   |
| Totals                                | 405         | 204  | 161  | 0    | 770   | 141         | 1243 | 38   | 0    | 1422  | 48          | 179  | 386  | 1    | 614   | 428         | 1219 | 325  | 0    | 1972  | 4778                       | 3394                         | 1384 |     |

### Graphical Summary of Hourly Volumes



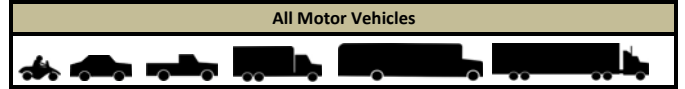
# Intersection Traffic Volume Report

| Count Basics                   |                            |             | Page 5 of 13       |  |
|--------------------------------|----------------------------|-------------|--------------------|--|
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |  |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |  |

## 15-Minute Motor Vehicle Data

### Erie Street and 4 Mile Road

#### 15-Minute Motor Vehicle Data



| 15-Minute<br>Time Period<br>Start Time | <div>↓</div> <div>From North</div> |      |      |      |       | <div>←</div> <div>From East</div> |      |      |      |       | <div>↑</div> <div>From South</div> |      |      |      |       | <div>→</div> <div>From West</div> |      |      |      |       | 15-Min<br>Totals | Hourly<br>Sum | PHF  |      |
|----------------------------------------|------------------------------------|------|------|------|-------|-----------------------------------|------|------|------|-------|------------------------------------|------|------|------|-------|-----------------------------------|------|------|------|-------|------------------|---------------|------|------|
|                                        | Erie Street                        |      |      |      |       | 4 Mile Road                       |      |      |      |       | Erie Street                        |      |      |      |       | 4 Mile Road                       |      |      |      |       |                  |               |      |      |
|                                        | Right                              | Thru | Left | U-Tn | Total | Right                             | Thru | Left | U-Tn | Total | Right                              | Thru | Left | U-Tn | Total | Right                             | Thru | Left | U-Tn | Total |                  |               |      |      |
| AM Peak Period                         | 6:00 AM                            | 13   | 1    | 2    | 0     | 16                                | 4    | 20   | 0    | 0     | 24                                 | 1    | 1    | 11   | 0     | 13                                | 5    | 14   | 6    | 0     | 25               | 78            | 451  | 0.78 |
|                                        | 6:15 AM                            | 11   | 6    | 1    | 0     | 18                                | 1    | 29   | 0    | 0     | 30                                 | 1    | 6    | 14   | 0     | 21                                | 3    | 9    | 7    | 0     | 19               | 88            | 504  | 0.87 |
|                                        | 6:30 AM                            | 22   | 5    | 11   | 0     | 38                                | 5    | 42   | 3    | 0     | 50                                 | 1    | 4    | 23   | 0     | 28                                | 9    | 14   | 6    | 0     | 29               | 145           | 596  | 0.83 |
|                                        | 6:45 AM                            | 17   | 6    | 9    | 0     | 32                                | 2    | 50   | 1    | 0     | 53                                 | 2    | 4    | 16   | 0     | 22                                | 6    | 22   | 5    | 0     | 33               | 140           | 643  | 0.84 |
|                                        | 7:00 AM                            | 15   | 2    | 4    | 0     | 21                                | 4    | 49   | 0    | 0     | 53                                 | 0    | 1    | 15   | 0     | 16                                | 7    | 27   | 7    | 0     | 41               | 131           | 734  | 0.79 |
|                                        | 7:15 AM                            | 19   | 8    | 8    | 0     | 35                                | 4    | 44   | 0    | 0     | 48                                 | 1    | 5    | 17   | 0     | 23                                | 13   | 53   | 8    | 0     | 74               | 180           | 819  | 0.89 |
|                                        | 7:30 AM                            | 15   | 5    | 8    | 0     | 28                                | 8    | 52   | 3    | 0     | 63                                 | 1    | 6    | 26   | 0     | 33                                | 11   | 45   | 12   | 0     | 68               | 192           | 879  | 0.92 |
|                                        | 7:45 AM                            | 22   | 15   | 15   | 0     | 52                                | 8    | 49   | 2    | 0     | 59                                 | 2    | 10   | 11   | 0     | 23                                | 11   | 71   | 15   | 0     | 97               | 231           | 881  | 0.92 |
|                                        | 8:00 AM                            | 17   | 11   | 10   | 0     | 38                                | 4    | 42   | 0    | 0     | 46                                 | 2    | 7    | 11   | 0     | 20                                | 13   | 86   | 13   | 0     | 112              | 216           | 803  | 0.84 |
|                                        | 8:15 AM                            | 17   | 7    | 12   | 0     | 36                                | 4    | 66   | 2    | 0     | 72                                 | 5    | 10   | 14   | 0     | 29                                | 12   | 74   | 17   | 0     | 103              | 240           |      |      |
|                                        | 8:30 AM                            | 18   | 13   | 7    | 0     | 38                                | 5    | 46   | 0    | 0     | 51                                 | 5    | 8    | 16   | 0     | 29                                | 13   | 54   | 9    | 0     | 76               | 194           |      |      |
|                                        | 8:45 AM                            | 16   | 3    | 3    | 0     | 22                                | 6    | 38   | 2    | 0     | 46                                 | 0    | 5    | 18   | 0     | 23                                | 17   | 35   | 10   | 0     | 62               | 153           |      |      |
|                                        | 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                            | 15   | 11   | 10   | 0     | 36                                | 3    | 55   | 2    | 0     | 60                                 | 1    | 16   | 19   | 0     | 36                                | 28   | 58   | 16   | 0     | 102              | 234           | 1001 | 0.96 |
|                                        | 3:15 PM                            | 18   | 16   | 5    | 0     | 39                                | 8    | 59   | 2    | 0     | 69                                 | 2    | 10   | 22   | 0     | 34                                | 34   | 71   | 14   | 0     | 119              | 261           | 992  | 0.95 |
|                                        | 3:30 PM                            | 15   | 14   | 7    | 0     | 36                                | 9    | 70   | 0    | 0     | 79                                 | 3    | 9    | 9    | 0     | 21                                | 30   | 73   | 17   | 0     | 120              | 256           | 938  | 0.92 |
|                                        | 3:45 PM                            | 15   | 10   | 2    | 0     | 27                                | 10   | 81   | 0    | 0     | 91                                 | 0    | 8    | 24   | 1     | 33                                | 29   | 54   | 16   | 0     | 99               | 250           | 918  | 0.92 |
|                                        | 4:00 PM                            | 15   | 7    | 9    | 0     | 31                                | 9    | 60   | 4    | 0     | 73                                 | 2    | 9    | 17   | 0     | 28                                | 19   | 54   | 20   | 0     | 93               | 225           | 915  | 0.93 |
|                                        | 4:15 PM                            | 20   | 5    | 3    | 0     | 28                                | 3    | 50   | 3    | 0     | 56                                 | 2    | 7    | 20   | 0     | 29                                | 24   | 54   | 16   | 0     | 94               | 207           | 923  | 0.93 |
|                                        | 4:30 PM                            | 19   | 11   | 8    | 0     | 38                                | 8    | 62   | 2    | 0     | 72                                 | 5    | 8    | 20   | 0     | 33                                | 24   | 55   | 14   | 0     | 93               | 236           | 939  | 0.95 |
|                                        | 4:45 PM                            | 18   | 13   | 10   | 0     | 41                                | 6    | 54   | 3    | 0     | 63                                 | 4    | 10   | 17   | 0     | 31                                | 21   | 65   | 26   | 0     | 112              | 247           | 903  | 0.91 |
|                                        | 5:00 PM                            | 26   | 16   | 4    | 0     | 46                                | 10   | 62   | 2    | 0     | 74                                 | 1    | 8    | 14   | 0     | 23                                | 27   | 49   | 14   | 0     | 90               | 233           | 874  | 0.94 |
|                                        | 5:15 PM                            | 20   | 8    | 4    | 0     | 32                                | 7    | 59   | 3    | 0     | 69                                 | 1    | 9    | 11   | 0     | 21                                | 21   | 60   | 20   | 0     | 101              | 223           |      |      |
|                                        | 5:30 PM                            | 8    | 7    | 6    | 0     | 21                                | 7    | 43   | 3    | 0     | 53                                 | 1    | 10   | 11   | 0     | 22                                | 27   | 63   | 14   | 0     | 104              | 200           |      |      |
|                                        | 5:45 PM                            | 14   | 4    | 3    | 0     | 21                                | 6    | 61   | 1    | 0     | 68                                 | 5    | 8    | 10   | 0     | 23                                | 24   | 59   | 23   | 0     | 106              | 218           |      |      |
|                                        | 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                                 |                                    | 405  | 204  | 161  | 0     | 770                               | 141  | 1243 | 38   | 0     | 1422                               | 48   | 179  | 386  | 1     | 614                               | 428  | 1219 | 325  | 0     | 1972             | 4778          |      |      |

#### Peak Hour All Vehicle Volume Summary

| Hourly<br>Time Period<br><br>Start Time | From North  |      |      |      |       | From East   |      |      |      |       | From South  |      |      |      |       | From West   |      |      |      |       | Total<br>Hourly<br>Volume | PHF |
|-----------------------------------------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|---------------------------|-----|
|                                         | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       |                           |     |
|                                         | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total |                           |     |
| AM 7:45 AM                              | 74          | 46   | 44   | 0    | 164   | 21          | 203  | 4    | 0    | 228   | 14          | 35   | 52   | 0    | 101   | 49          | 285  | 54   | 0    | 388   | 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 3:00 PM                              | 63          | 51   | 24   | 0    | 138   | 30          | 265  | 4    | 0    | 299   | 6           | 43   | 74   | 1    | 124   | 121         | 256  | 63   | 0    | 440   | 0.96                      |     |



# Intersection Traffic Volume Report

| Count Basics                   |                            |             | Page 6 of 13       |
|--------------------------------|----------------------------|-------------|--------------------|
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |

## 15-Minute Automobile Data

### Erie Street and 4 Mile Road

| Automobiles (Cars, Light Trucks, & Motorcycles)                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |

### 15-Minute Automobile Data

| 15-Minute<br>Time Period<br>Start Time | From North  |      |      |      |       | From East   |      |      |      |       | From South  |      |      |      |       | From West   |      |      |      |       | 15-Min<br>Totals | Hourly<br>Sum |     |
|----------------------------------------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|-------------|------|------|------|-------|------------------|---------------|-----|
|                                        | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       | Erie Street |      |      |      |       | 4 Mile Road |      |      |      |       |                  |               |     |
|                                        | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total |                  |               |     |
| AM Peak Period                         | 6:00 AM     | 13   | 1    | 2    | 0     | 16          | 3    | 20   | 0    | 0     | 23          | 0    | 1    | 10   | 0     | 11          | 4    | 14   | 5    | 0     | 23               | 73            | 431 |
|                                        | 6:15 AM     | 11   | 6    | 0    | 0     | 17          | 1    | 28   | 0    | 0     | 29          | 0    | 6    | 13   | 0     | 19          | 3    | 8    | 7    | 0     | 18               | 83            | 486 |
|                                        | 6:30 AM     | 22   | 4    | 11   | 0     | 37          | 5    | 42   | 1    | 0     | 48          | 0    | 4    | 23   | 0     | 27          | 8    | 13   | 5    | 0     | 26               | 138           | 579 |
|                                        | 6:45 AM     | 17   | 6    | 9    | 0     | 32          | 2    | 49   | 1    | 0     | 52          | 2    | 4    | 15   | 0     | 21          | 6    | 21   | 5    | 0     | 32               | 137           | 623 |
|                                        | 7:00 AM     | 15   | 2    | 4    | 0     | 21          | 4    | 49   | 0    | 0     | 53          | 0    | 1    | 14   | 0     | 15          | 7    | 26   | 6    | 0     | 39               | 128           | 702 |
|                                        | 7:15 AM     | 18   | 8    | 7    | 0     | 33          | 4    | 44   | 0    | 0     | 48          | 1    | 5    | 17   | 0     | 23          | 13   | 51   | 8    | 0     | 72               | 176           | 778 |
|                                        | 7:30 AM     | 15   | 5    | 8    | 0     | 28          | 8    | 52   | 1    | 0     | 61          | 1    | 6    | 24   | 0     | 31          | 9    | 43   | 10   | 0     | 62               | 182           | 831 |
|                                        | 7:45 AM     | 22   | 14   | 13   | 0     | 49          | 8    | 48   | 1    | 0     | 57          | 1    | 10   | 10   | 0     | 21          | 9    | 67   | 13   | 0     | 89               | 216           | 837 |
|                                        | 8:00 AM     | 16   | 11   | 10   | 0     | 37          | 4    | 41   | 0    | 0     | 45          | 1    | 6    | 10   | 0     | 17          | 13   | 80   | 12   | 0     | 105              | 204           | 768 |
|                                        | 8:15 AM     | 15   | 7    | 11   | 0     | 33          | 4    | 66   | 2    | 0     | 72          | 2    | 10   | 14   | 0     | 26          | 10   | 72   | 16   | 0     | 98               | 229           |     |
|                                        | 8:30 AM     | 18   | 13   | 7    | 0     | 38          | 5    | 44   | 0    | 0     | 49          | 4    | 8    | 16   | 0     | 28          | 12   | 53   | 8    | 0     | 73               | 188           |     |
|                                        | 8:45 AM     | 14   | 3    | 3    | 0     | 20          | 6    | 36   | 2    | 0     | 44          | 0    | 4    | 18   | 0     | 22          | 16   | 35   | 10   | 0     | 61               | 147           |     |
|                                        | 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     | 15   | 11   | 10   | 0     | 36          | 3    | 55   | 2    | 0     | 60          | 0    | 15   | 18   | 0     | 33          | 28   | 55   | 15   | 0     | 98               | 227           | 965 |
|                                        | 3:15 PM     | 15   | 15   | 5    | 0     | 35          | 7    | 55   | 1    | 0     | 63          | 2    | 9    | 22   | 0     | 33          | 34   | 69   | 14   | 0     | 117              | 248           | 951 |
|                                        | 3:30 PM     | 15   | 14   | 7    | 0     | 36          | 8    | 68   | 0    | 0     | 76          | 3    | 9    | 9    | 0     | 21          | 28   | 72   | 15   | 0     | 115              | 248           | 905 |
|                                        | 3:45 PM     | 12   | 9    | 2    | 0     | 23          | 10   | 81   | 0    | 0     | 91          | 0    | 7    | 23   | 1     | 31          | 29   | 54   | 14   | 0     | 97               | 242           | 887 |
|                                        | 4:00 PM     | 14   | 5    | 9    | 0     | 28          | 8    | 57   | 3    | 0     | 68          | 2    | 8    | 17   | 0     | 27          | 18   | 53   | 19   | 0     | 90               | 213           | 884 |
|                                        | 4:15 PM     | 19   | 4    | 3    | 0     | 26          | 3    | 49   | 2    | 0     | 54          | 2    | 7    | 20   | 0     | 29          | 24   | 54   | 15   | 0     | 93               | 202           | 901 |
|                                        | 4:30 PM     | 18   | 11   | 8    | 0     | 37          | 7    | 61   | 1    | 0     | 69          | 4    | 8    | 20   | 0     | 32          | 24   | 54   | 14   | 0     | 92               | 230           | 917 |
|                                        | 4:45 PM     | 18   | 13   | 9    | 0     | 40          | 6    | 51   | 3    | 0     | 60          | 4    | 10   | 17   | 0     | 31          | 20   | 63   | 25   | 0     | 108              | 239           | 885 |
|                                        | 5:00 PM     | 26   | 16   | 4    | 0     | 46          | 10   | 61   | 2    | 0     | 73          | 1    | 7    | 14   | 0     | 22          | 27   | 49   | 13   | 0     | 89               | 230           | 863 |
|                                        | 5:15 PM     | 18   | 8    | 4    | 0     | 30          | 7    | 56   | 3    | 0     | 66          | 1    | 9    | 11   | 0     | 21          | 21   | 60   | 20   | 0     | 101              | 218           |     |
|                                        | 5:30 PM     | 7    | 7    | 6    | 0     | 20          | 7    | 42   | 3    | 0     | 52          | 1    | 10   | 11   | 0     | 22          | 27   | 63   | 14   | 0     | 104              | 198           |     |
|                                        | 5:45 PM     | 14   | 4    | 3    | 0     | 21          | 6    | 61   | 1    | 0     | 68          | 5    | 8    | 10   | 0     | 23          | 24   | 58   | 23   | 0     | 105              | 217           |     |
|                                        | 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                                 |             | 387  | 197  | 155  | 0     | 739         | 136  | 1216 | 29   | 0     | 1381        | 37   | 172  | 376  | 1     | 586         | 414  | 1187 | 306  | 0     | 1907             | 4613          |     |

### Peak Hour Automobile Volume Summary

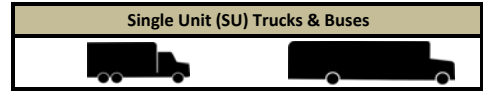
| Hourly<br>Time Period<br>Start Time | ↓<br>From North |      |      |      |       | ←<br>From East |      |      |      |       | ↑<br>From South |      |      |      |       | →<br>From West |      |      |      |       | Total<br>Hourly<br>Volume |
|-------------------------------------|-----------------|------|------|------|-------|----------------|------|------|------|-------|-----------------|------|------|------|-------|----------------|------|------|------|-------|---------------------------|
|                                     | Erie Street     |      |      |      |       | 4 Mile Road    |      |      |      |       | Erie Street     |      |      |      |       | 4 Mile Road    |      |      |      |       |                           |
|                                     | Right           | Thru | Left | U-Tn | Total | Right          | Thru | Left | U-Tn | Total | Right           | Thru | Left | U-Tn | Total | Right          | Thru | Left | U-Tn | Total |                           |
| AM 7:45 AM                          | 71              | 45   | 41   | 0    | 157   | 21             | 199  | 3    | 0    | 223   | 8               | 34   | 50   | 0    | 92    | 44             | 272  | 49   | 0    | 365   | 837                       |
| 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 3:00 PM                          | 57              | 49   | 24   | 0    | 130   | 28             | 259  | 3    | 0    | 290   | 5               | 40   | 72   | 1    | 118   | 119            | 250  | 58   | 0    | 427   | 965                       |

# Intersection Traffic Volume Report

| Count Basics                   |                            |             | Page 7 of 13       |
|--------------------------------|----------------------------|-------------|--------------------|
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |

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

Erie Street and 4 Mile Road



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

| 15-Minute<br>Time Period<br>Start Time | From North  |      |      |      |       |       | From East   |      |      |       |       | From South  |      |      |       |       | From West   |      |      |       |    | 15-Min<br>Totals | Hourly<br>Sum |    |
|----------------------------------------|-------------|------|------|------|-------|-------|-------------|------|------|-------|-------|-------------|------|------|-------|-------|-------------|------|------|-------|----|------------------|---------------|----|
|                                        | Erie Street |      |      |      |       |       | 4 Mile Road |      |      |       |       | Erie Street |      |      |       |       | 4 Mile Road |      |      |       |    |                  |               |    |
|                                        | Right       | Thru | Left | U-Tn | Total | Right | Thru        | Left | U-Tn | Total | Right | Thru        | Left | U-Tn | Total | Right | Thru        | Left | U-Tn | Total |    |                  |               |    |
| AM Peak Period                         | 6:00 AM     | 0    | 0    | 0    | 0     | 0     | 1           | 0    | 0    | 0     | 1     | 1           | 0    | 1    | 0     | 2     | 0           | 0    | 1    | 0     | 1  | 4                | 18            |    |
|                                        | 6:15 AM     | 0    | 0    | 1    | 0     | 1     | 0           | 1    | 0    | 1     | 1     | 1           | 0    | 0    | 0     | 1     | 0           | 1    | 0    | 0     | 1  | 4                | 17            |    |
|                                        | 6:30 AM     | 0    | 1    | 0    | 0     | 1     | 0           | 0    | 2    | 0     | 2     | 1           | 0    | 0    | 0     | 1     | 1           | 1    | 1    | 0     | 3  | 7                | 17            |    |
|                                        | 6:45 AM     | 0    | 0    | 0    | 0     | 0     | 0           | 1    | 0    | 0     | 1     | 0           | 0    | 1    | 0     | 1     | 0           | 1    | 0    | 0     | 1  | 3                | 20            |    |
|                                        | 7:00 AM     | 0    | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 1    | 0     | 1     | 0           | 1    | 1    | 0     | 2  | 3                | 32            |    |
|                                        | 7:15 AM     | 1    | 0    | 1    | 0     | 2     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0     | 0           | 2    | 0    | 0     | 2  | 4                | 41            |    |
|                                        | 7:30 AM     | 0    | 0    | 0    | 0     | 0     | 0           | 0    | 2    | 0     | 2     | 0           | 0    | 2    | 0     | 2     | 2           | 2    | 2    | 0     | 6  | 10               | 48            |    |
|                                        | 7:45 AM     | 0    | 1    | 2    | 0     | 3     | 0           | 1    | 1    | 0     | 2     | 2           | 1    | 0    | 1     | 0     | 2           | 2    | 4    | 2     | 0  | 8                | 15            | 44 |
|                                        | 8:00 AM     | 1    | 0    | 0    | 0     | 1     | 0           | 1    | 0    | 0     | 1     | 1           | 1    | 1    | 0     | 3     | 0           | 6    | 1    | 0     | 7  | 12               | 35            |    |
|                                        | 8:15 AM     | 2    | 0    | 1    | 0     | 3     | 0           | 0    | 0    | 0     | 0     | 3           | 0    | 0    | 0     | 3     | 2           | 2    | 1    | 0     | 5  | 11               |               |    |
|                                        | 8:30 AM     | 0    | 0    | 0    | 0     | 0     | 0           | 2    | 0    | 0     | 2     | 1           | 0    | 0    | 0     | 1     | 1           | 1    | 1    | 0     | 3  | 6                |               |    |
|                                        | 8:45 AM     | 2    | 0    | 0    | 0     | 2     | 0           | 2    | 0    | 0     | 2     | 0           | 1    | 0    | 0     | 1     | 1           | 0    | 0    | 0     | 1  | 6                |               |    |
|                                        | 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     | 1           | 1    | 1    | 0     | 3     | 0           | 3    | 1    | 0     | 4  | 7                | 36            |    |
|                                        | 3:15 PM     | 3    | 1    | 0    | 0     | 4     | 1           | 4    | 1    | 0     | 6     | 0           | 1    | 0    | 0     | 1     | 0           | 2    | 0    | 0     | 2  | 13               | 41            |    |
|                                        | 3:30 PM     | 0    | 0    | 0    | 0     | 0     | 1           | 2    | 0    | 0     | 3     | 0           | 0    | 0    | 0     | 0     | 2           | 1    | 2    | 0     | 5  | 8                | 33            |    |
|                                        | 3:45 PM     | 3    | 1    | 0    | 0     | 4     | 0           | 0    | 0    | 0     | 0     | 0           | 1    | 1    | 0     | 2     | 0           | 0    | 2    | 0     | 2  | 8                | 31            |    |
|                                        | 4:00 PM     | 1    | 2    | 0    | 0     | 3     | 1           | 3    | 1    | 0     | 5     | 0           | 1    | 0    | 0     | 1     | 1           | 1    | 1    | 0     | 3  | 12               | 31            |    |
|                                        | 4:15 PM     | 1    | 1    | 0    | 0     | 2     | 0           | 1    | 1    | 0     | 2     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 1    | 0     | 1  | 5                | 22            |    |
|                                        | 4:30 PM     | 1    | 0    | 0    | 0     | 1     | 1           | 1    | 1    | 0     | 3     | 1           | 0    | 0    | 0     | 1     | 0           | 1    | 0    | 0     | 1  | 6                | 22            |    |
|                                        | 4:45 PM     | 0    | 0    | 1    | 0     | 1     | 0           | 3    | 0    | 0     | 3     | 0           | 0    | 0    | 0     | 0     | 1           | 2    | 1    | 0     | 4  | 8                | 18            |    |
|                                        | 5:00 PM     | 0    | 0    | 0    | 0     | 0     | 0           | 1    | 0    | 0     | 1     | 0           | 1    | 0    | 0     | 1     | 0           | 0    | 1    | 0     | 1  | 3                | 11            |    |
|                                        | 5:15 PM     | 2    | 0    | 0    | 0     | 2     | 0           | 3    | 0    | 0     | 3     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0  | 5                |               |    |
|                                        | 5:30 PM     | 1    | 0    | 0    | 0     | 1     | 0           | 1    | 0    | 0     | 1     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0  | 2                |               |    |
|                                        | 5:45 PM     | 0    | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0     | 0           | 0    | 0    | 0     | 0     | 0           | 1    | 0    | 0     | 1  | 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                                 |             | 18   | 7    | 6    | 0     | 31    | 5           | 27   | 9    | 0     | 41    | 11          | 7    | 9    | 0     | 27    | 13          | 32   | 19   | 0     | 64 | 163              |               |    |

### Peak Hour Single Unit (SU) Truck & Buses Volume Summary

| Hourly<br>Time Period<br>Start Time | <div>↓</div> <div>From North</div> |      |      |      |       | <div>←</div> <div>From East</div> |      |      |      |       | <div>↑</div> <div>From South</div> |      |      |      |       | <div>→</div> <div>From West</div> |      |      |      |       | Total<br>Hourly<br>Volume |
|-------------------------------------|------------------------------------|------|------|------|-------|-----------------------------------|------|------|------|-------|------------------------------------|------|------|------|-------|-----------------------------------|------|------|------|-------|---------------------------|
|                                     | Erie Street                        |      |      |      |       | 4 Mile Road                       |      |      |      |       | Erie Street                        |      |      |      |       | 4 Mile Road                       |      |      |      |       |                           |
|                                     | Right                              | Thru | Left | U-Tn | Total | Right                             | Thru | Left | U-Tn | Total | Right                              | Thru | Left | U-Tn | Total | Right                             | Thru | Left | U-Tn | Total |                           |
| AM 7:45 AM                          | 3                                  | 1    | 3    | 0    | 7     | 0                                 | 4    | 1    | 0    | 5     | 6                                  | 1    | 2    | 0    | 9     | 5                                 | 13   | 5    | 0    | 23    | 44                        |
| 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 3:00 PM                          | 6                                  | 2    | 0    | 0    | 8     | 2                                 | 6    | 1    | 0    | 9     | 1                                  | 3    | 2    | 0    | 6     | 2                                 | 6    | 5    | 0    | 13    | 36                        |

## Intersection Traffic Volume Report

### 15-Minute Semi-Truck Data

|                                |                            |             |                     |
|--------------------------------|----------------------------|-------------|---------------------|
| <b>Count Basics</b>            |                            |             | <b>Page 8 of 13</b> |
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session  |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events   |

***Erie Street and 4 Mile Road***



### 15-Minute Semi-Truck Data

[illegible]

### Peak Hour Semi-Truck Volume Summary

| Hourly<br>Time Period<br>Start Time | <div> <div>↓</div> <div>From North</div> </div> |      |      |      |       | <div> <div>←</div> <div>From East</div> </div> |      |      |      |       | <div> <div>↑</div> <div>From South</div> </div> |      |      |      |       | <div> <div>→</div> <div>From West</div> </div> |      |      |      |       | Total<br>Hourly<br>Volume |
|-------------------------------------|-------------------------------------------------|------|------|------|-------|------------------------------------------------|------|------|------|-------|-------------------------------------------------|------|------|------|-------|------------------------------------------------|------|------|------|-------|---------------------------|
|                                     | Erie Street                                     |      |      |      |       | 4 Mile Road                                    |      |      |      |       | Erie Street                                     |      |      |      |       | 4 Mile Road                                    |      |      |      |       |                           |
|                                     | Right                                           | Thru | Left | U-Tn | Total | Right                                          | Thru | Left | U-Tn | Total | Right                                           | Thru | Left | U-Tn | Total | Right                                          | Thru | Left | U-Tn | Total |                           |
| AM 7:45 AM                          | 0                                               | 0    | 0    | 0    | 0     | 0                                              | 0    | 0    | 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    | 0    | 0     | 0                                              | 0    | 0    | 0    | 0     | 0                         |
| PM 3:00 PM                          | 0                                               | 0    | 0    | 0    | 0     | 0                                              | 0    | 0    | 0    | 0     | 0                                               | 0    | 0    | 0    | 0     | 0                                              | 0    | 0    | 0    | 0     | 0                         |

## Intersection Traffic Volume Report

### 15-Minute Heavy Vehicle Data

***Erie Street and 4 Mile Road***

## 15-Minute Heavy Vehicle Data

|                                |                            |                     |                    |
|--------------------------------|----------------------------|---------------------|--------------------|
| <b>Count Basics</b>            |                            | <b>Page 9 of 13</b> |                    |
| Start Date:                    | Monday, September 13, 2021 | Weekday             | Schools in Session |
| Total Number of Hours Counted: | 6                          | Non-Holiday         | No Special Events  |

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

[illegible]

### Peak Hour Heavy Vehicle Volume Summary


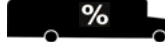
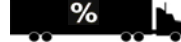
| Hourly<br>Time Period<br>Start Time | ↓<br>From North |      |      |      |       | ←<br>From East |      |      |      |       | ↑<br>From South |      |      |      |       | →<br>From West |      |      |      |       | Total<br>Hourly<br>Volume |
|-------------------------------------|-----------------|------|------|------|-------|----------------|------|------|------|-------|-----------------|------|------|------|-------|----------------|------|------|------|-------|---------------------------|
|                                     | Erie Street     |      |      |      |       | 4 Mile Road    |      |      |      |       | Erie Street     |      |      |      |       | 4 Mile Road    |      |      |      |       |                           |
|                                     | Right           | Thru | Left | U-Tn | Total | Right          | Thru | Left | U-Tn | Total | Right           | Thru | Left | U-Tn | Total | Right          | Thru | Left | U-Tn | Total |                           |
|                                     | AM 7:45 AM      | 3    | 1    | 3    | 0     | 7              | 0    | 4    | 1    | 0     | 5               | 6    | 1    | 2    | 0     | 9              | 5    | 13   | 5    | 0     |                           |
| MD 12:00 PM                         | 0               | 0    | 0    | 0    | 0     | 0              | 0    | 0    | 0    | 0     | 0               | 0    | 0    | 0    | 0     | 0              | 0    | 0    | 0    | 0     |                           |
| PM 3:00 PM                          | 6               | 2    | 0    | 0    | 8     | 2              | 6    | 1    | 0    | 9     | 1               | 3    | 2    | 0    | 6     | 2              | 6    | 5    | 0    | 13    |                           |

# Intersection Traffic Volume Report

## 15-Minute Heavy Vehicle Percentages

Erie Street and 4 Mile Road

|                                |                            |             |                    |  |
|--------------------------------|----------------------------|-------------|--------------------|--|
| Count Basics                   |                            |             | Page 10 of 13      |  |
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session |  |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events  |  |

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

### 15-Minute Heavy Vehicle Percentages

| 15-Minute Time Period | From North  |      |      |       |       | From East   |      |      |      |       | From South  |       |      |      |       | From West   |      |      |      |       | Total Heavy Vehicle Percent | Hourly Heavy Vehicle Percent |  |  |
|-----------------------|-------------|------|------|-------|-------|-------------|------|------|------|-------|-------------|-------|------|------|-------|-------------|------|------|------|-------|-----------------------------|------------------------------|--|--|
|                       | Erie Street |      |      |       |       | 4 Mile Road |      |      |      |       | Erie Street |       |      |      |       | 4 Mile Road |      |      |      |       |                             |                              |  |  |
|                       | Right       | Thru | Left | U-Tn  | Total | Right       | Thru | Left | U-Tn | Total | Right       | Thru  | Left | U-Tn | Total | Right       | Thru | Left | U-Tn | Total |                             |                              |  |  |
| AM Peak Period        | 6:00 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 25.0        | 0.0  | 0.0  | 0.0  | 4.2   | 100.0       | 0.0   | 9.1  | 0.0  | 15.4  | 20.0        | 0.0  | 16.7 | 0.0  | 8.0   | 6.4                         | 4.4                          |  |  |
|                       | 6:15 AM     | 0.0  | 0.0  | 100.0 | 0.0   | 5.6         | 0.0  | 3.4  | 0.0  | 0.0   | 3.3         | 100.0 | 0.0  | 7.1  | 0.0   | 9.5         | 0.0  | 11.1 | 0.0  | 0.0   | 5.3                         | 5.7                          |  |  |
|                       | 6:30 AM     | 0.0  | 20.0 | 0.0   | 0.0   | 2.6         | 0.0  | 0.0  | 66.7 | 0.0   | 4.0         | 100.0 | 0.0  | 0.0  | 0.0   | 3.6         | 11.1 | 7.1  | 16.7 | 0.0   | 10.3                        | 4.8                          |  |  |
|                       | 6:45 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 2.0  | 0.0  | 0.0   | 1.9         | 0.0   | 0.0  | 6.2  | 0.0   | 4.5         | 0.0  | 4.5  | 0.0  | 0.0   | 3.0                         | 2.1                          |  |  |
|                       | 7:00 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 6.7  | 0.0   | 6.2         | 0.0  | 3.7  | 14.3 | 0.0   | 4.9                         | 2.3                          |  |  |
|                       | 7:15 AM     | 5.3  | 0.0  | 12.5  | 0.0   | 5.7         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 3.8  | 0.0  | 0.0   | 2.7                         | 2.2                          |  |  |
|                       | 7:30 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 66.7 | 0.0   | 3.2         | 0.0   | 0.0  | 7.7  | 0.0   | 6.1         | 18.2 | 4.4  | 16.7 | 0.0   | 8.8                         | 5.2                          |  |  |
|                       | 7:45 AM     | 0.0  | 6.7  | 13.3  | 0.0   | 5.8         | 0.0  | 2.0  | 50.0 | 0.0   | 3.4         | 50.0  | 0.0  | 9.1  | 0.0   | 8.7         | 18.2 | 5.6  | 13.3 | 0.0   | 8.2                         | 6.5                          |  |  |
|                       | 8:00 AM     | 5.9  | 0.0  | 0.0   | 0.0   | 2.6         | 0.0  | 2.4  | 0.0  | 0.0   | 2.2         | 50.0  | 14.3 | 9.1  | 0.0   | 15.0        | 0.0  | 7.0  | 7.7  | 0.0   | 6.2                         | 5.6                          |  |  |
|                       | 8:15 AM     | 11.8 | 0.0  | 8.3   | 0.0   | 8.3         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 60.0  | 0.0  | 0.0  | 0.0   | 10.3        | 16.7 | 2.7  | 5.9  | 0.0   | 4.9                         | 4.6                          |  |  |
|                       | 8:30 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 4.3  | 0.0  | 0.0   | 3.9         | 20.0  | 0.0  | 0.0  | 0.0   | 3.4         | 7.7  | 1.9  | 11.1 | 0.0   | 3.9                         | 3.1                          |  |  |
|                       | 8:45 AM     | 12.5 | 0.0  | 0.0   | 0.0   | 9.1         | 0.0  | 5.3  | 0.0  | 0.0   | 4.3         | 0.0   | 20.0 | 0.0  | 0.0   | 4.3         | 5.9  | 0.0  | 0.0  | 0.0   | 1.6                         | 3.9                          |  |  |
|                       | 9:00 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 9:15 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 9:30 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 9:45 AM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 0.0   | 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         | 100.0 | 6.2  | 5.3  | 0.0   | 8.3         | 0.0  | 5.2  | 6.2  | 0.0   | 3.9                         | 3.0                          |  |  |
|                       | 3:15 PM     | 16.7 | 6.2  | 0.0   | 0.0   | 10.3        | 12.5 | 6.8  | 50.0 | 0.0   | 8.7         | 0.0   | 10.0 | 0.0  | 0.0   | 2.9         | 0.0  | 2.8  | 0.0  | 0.0   | 1.7                         | 5.0                          |  |  |
|                       | 3:30 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 11.1 | 2.9  | 0.0  | 0.0   | 3.8         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 6.7  | 1.4  | 11.8 | 0.0   | 4.2                         | 3.1                          |  |  |
|                       | 3:45 PM     | 20.0 | 10.0 | 0.0   | 0.0   | 14.8        | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 12.5 | 4.2  | 0.0   | 6.1         | 0.0  | 0.0  | 12.5 | 0.0   | 2.0                         | 3.2                          |  |  |
|                       | 4:00 PM     | 6.7  | 28.6 | 0.0   | 0.0   | 9.7         | 11.1 | 5.0  | 25.0 | 0.0   | 6.8         | 0.0   | 11.1 | 0.0  | 0.0   | 3.6         | 5.3  | 1.9  | 5.0  | 0.0   | 3.2                         | 5.3                          |  |  |
|                       | 4:15 PM     | 5.0  | 20.0 | 0.0   | 0.0   | 7.1         | 0.0  | 2.0  | 33.3 | 0.0   | 3.6         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 6.2  | 0.0   | 1.1                         | 2.4                          |  |  |
|                       | 4:30 PM     | 5.3  | 0.0  | 0.0   | 0.0   | 2.6         | 12.5 | 1.6  | 50.0 | 0.0   | 4.2         | 20.0  | 0.0  | 0.0  | 0.0   | 3.0         | 0.0  | 1.8  | 0.0  | 0.0   | 1.1                         | 2.5                          |  |  |
|                       | 4:45 PM     | 0.0  | 0.0  | 10.0  | 0.0   | 2.4         | 0.0  | 5.6  | 0.0  | 0.0   | 4.8         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 4.8  | 3.1  | 3.8  | 0.0   | 3.6                         | 3.2                          |  |  |
|                       | 5:00 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 1.6  | 0.0  | 0.0   | 1.4         | 0.0   | 12.5 | 0.0  | 0.0   | 4.3         | 0.0  | 0.0  | 7.1  | 0.0   | 1.1                         | 1.3                          |  |  |
|                       | 5:15 PM     | 10.0 | 0.0  | 0.0   | 0.0   | 6.2         | 0.0  | 5.1  | 0.0  | 0.0   | 4.3         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 2.2                          |  |  |
|                       | 5:30 PM     | 12.5 | 0.0  | 0.0   | 0.0   | 4.8         | 0.0  | 2.3  | 0.0  | 0.0   | 1.9         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 1.0                          |  |  |
|                       | 5:45 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 1.7  | 0.0  | 0.0   | 0.9                         | 0.5                          |  |  |
|                       | 6:00 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 6:15 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 6:30 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 6:45 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 7:00 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 7:15 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 7:30 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 7:45 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 8:00 PM     | 0.0  | 0.0  | 0.0   | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0         | 0.0   | 0.0  | 0.0  | 0.0   | 0.0         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0                         | 0.0                          |  |  |
|                       | 8:15 PM     | 0.0  |      |       |       |             |      |      |      |       |             |       |      |      |       |             |      |      |      |       |                             |                              |  |  |

# Intersection Traffic Volume Report





|                                |                            |             |                      |
|--------------------------------|----------------------------|-------------|----------------------|
| <b>Count Basics</b>            |                            |             | <b>Page 11 of 13</b> |
| Start Date:                    | Monday, September 13, 2021 | Weekday     | Schools in Session   |
| Total Number of Hours Counted: | 6                          | Non-Holiday | No Special Events    |

## 15-Minute Pedestrian and Bicyclist Data

Erie Street and 4 Mile Road



### 15-Minute Pedestrian and Bicyclist Data

| 15-Minute<br>Time Period<br>Start Time |          | Crossing  |           |       | Crossing  |           |       | Crossing  |           |       | Crossing  |           |       | 15-Min<br>Totals | Hourly<br>Sum |
|----------------------------------------|----------|--------------------------------------------------------------------------------------------|-----------|-------|--------------------------------------------------------------------------------------------|-----------|-------|--------------------------------------------------------------------------------------------|-----------|-------|----------------------------------------------------------------------------------------------|-----------|-------|------------------|---------------|
|                                        |          | North Approach                                                                             |           |       | East Approach                                                                              |           |       | South Approach                                                                             |           |       | West Approach                                                                                |           |       |                  |               |
|                                        |          | Pedestrian                                                                                 | Bicyclist | Total | Pedestrian                                                                                 | Bicyclist | Total | Pedestrian                                                                                 | Bicyclist | Total | Pedestrian                                                                                   | Bicyclist | Total |                  |               |
| AM Peak Period                         | 6:00 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 1         | 1     | 1                | 4             |
|                                        | 6:15 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 1         | 1     | 0                                                                                            | 0         | 0     | 1                | 3             |
|                                        | 6:30 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 1                                                                                          | 0         | 1     | 0                                                                                            | 0         | 0     | 1                | 4             |
|                                        | 6:45 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 1         | 1     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 1                | 3             |
|                                        | 7:00 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 3             |
|                                        | 7:15 AM  | 1                                                                                          | 0         | 1     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 1                                                                                            | 0         | 1     | 2                | 3             |
|                                        | 7:30 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 1             |
|                                        | 7:45 AM  | 0                                                                                          | 1         | 1     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 1                | 2             |
|                                        | 8:00 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 1             |
|                                        | 8:15 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 8:30 AM  | 0                                                                                          | 1         | 1     | 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                |               |
|                                        | 9:00 AM  | 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                |               |
| Midday Peak Period                     | 9:30 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 9:45 AM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 10:00 AM | 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                |               |
|                                        | 10:30 AM | 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                |               |
|                                        | 11:00 AM | 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                |               |
|                                        | 11:30 AM | 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                |               |
|                                        | 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                |               |
| PM Peak Period                         | 1:00 PM  | 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                |               |
|                                        | 1:30 PM  | 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                |               |
|                                        | 2:00 PM  | 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                |               |
|                                        | 2:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 2:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 3:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 0             |
|                                        | 3:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 0             |
|                                        | 3:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 0             |
|                                        | 3:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 1             |
|                                        | 4:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 1             |
|                                        | 4:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 3             |
|                                        | 4:30 PM  | 0                                                                                          | 1         | 1     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 1                | 4             |
|                                        | 4:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                | 3             |
|                                        | 5:00 PM  | 1                                                                                          | 0         | 1     | 1                                                                                          | 0         | 1     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 2                | 3             |
|                                        | 5:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 1                                                                                          | 1         | 0     | 0                                                                                            | 0         | 0     | 1                |               |
|                                        | 5:30 PM  | 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     | 0                |               |
|                                        | 6:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 6:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 6:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 6:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 7:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 7:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 7:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 7:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 8:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 8:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 8:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 8:45 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 9:00 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 9:15 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
|                                        | 9:30 PM  | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     | 0                |               |
| 9:45 PM                                | 0        | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                          | 0         | 0     | 0                                                                                            | 0         | 0     |                  |               |
| Totals                                 |          | 2                                                                                          | 3         | 5     | 1                                                                                          | 1         | 2     | 1                                                                                          | 2         | 3     | 1                                                                                            | 1         | 2     | 12               |               |

### Special Pedestrians

| Pedestrian Type                           | None | 1 or 2 | A Few | Several | Many | Unknown |
|-------------------------------------------|------|--------|-------|---------|------|---------|
| Pre-school Children                       | x    |        |       |         |      |         |
| Elementary School Age Children            | x    |        |       |         |      |         |
| Visually Impaired (white cane/helper dog) | x    |        |       |         |      |         |
| Elderly/Disabled (except wheelchairs)     | x    |        |       |         |      |         |
| Wheelchairs/Electric Scooters             | x    |        |       |         |      |         |
| Other (None)                              | x    |        |       |         |      |         |



# Wisconsin Department of Transportation

## Hourly Traffic Volume Report

2017-Jun-06 to 2017-Jun-08

48 Hour Count - Averages and Graphs Do Not Include All Days

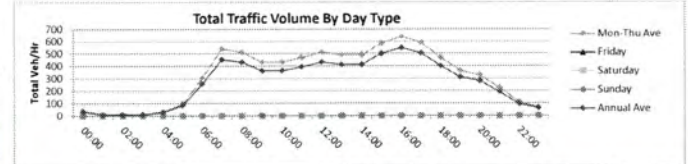
Coverage Count

|              |                                      |                       |   |
|--------------|--------------------------------------|-----------------------|---|
| Location     | CTH G EAST OF ERIE ST CALDONIA TNSHP | Segment ID            |   |
| Site #       | 511002                               | Seasonal Factor Group | 2 |
| Region       | SE                                   | Daily Factor Group    | 2 |
| County       | RACINE                               | Axle Factor Group     | 6 |
| Funct. Class | U Minor Arterial                     | Growth Factor Group   |   |

| Hour        | Sun           |       | Mon           |       | Tues 2017-06-06 |       | Wed 2017-06-07 |       | Thur 2017-06-08 |       | Fri           |       | Sat           |       |
|-------------|---------------|-------|---------------|-------|-----------------|-------|----------------|-------|-----------------|-------|---------------|-------|---------------|-------|
|             | Undivided Hwy | Total | Undivided Hwy | Total | Undivided Hwy   | Total | Undivided Hwy  | Total | Undivided Hwy   | Total | Undivided Hwy | Total | Undivided Hwy | Total |
| 00:00-00:59 | -             | -     | -             | -     | -               | -     | 36             | 36    | 44              | 44    | -             | -     | -             | -     |
| 01:00-01:59 | -             | -     | -             | -     | -               | -     | 15             | 15    | 11              | 11    | -             | -     | -             | -     |
| 02:00-02:59 | -             | -     | -             | -     | -               | -     | 9              | 9     | 13              | 13    | -             | -     | -             | -     |
| 03:00-03:59 | -             | -     | -             | -     | -               | -     | 10             | 10    | 16              | 16    | -             | -     | -             | -     |
| 04:00-04:59 | -             | -     | -             | -     | -               | -     | 30             | 30    | 38              | 38    | -             | -     | -             | -     |
| 05:00-05:59 | -             | -     | -             | -     | -               | -     | 98             | 98    | 100             | 100   | -             | -     | -             | -     |
| 06:00-06:59 | -             | -     | -             | -     | -               | -     | 302            | 302   | 306             | 306   | -             | -     | -             | -     |
| 07:00-07:59 | -             | -     | -             | -     | -               | -     | 548            | 548   | 528             | 528   | -             | -     | -             | -     |
| 08:00-08:59 | -             | -     | -             | -     | -               | -     | 566            | 566   | 457             | 457   | -             | -     | -             | -     |
| 09:00-09:59 | -             | -     | -             | -     | -               | -     | 426            | 426   | 437             | 437   | -             | -     | -             | -     |
| 10:00-10:59 | -             | -     | -             | -     | -               | -     | 450            | 450   | 412             | 412   | -             | -     | -             | -     |
| 11:00-11:59 | -             | -     | -             | -     | -               | -     | 478            | 478   | 456             | 456   | -             | -     | -             | -     |
| 12:00-12:59 | -             | -     | -             | -     | -               | -     | 528            | 528   | 495             | 495   | -             | -     | -             | -     |
| 13:00-13:59 | -             | -     | -             | -     | -               | -     | 475            | 475   | 504             | 504   | -             | -     | -             | -     |
| 14:00-14:59 | -             | -     | -             | -     | -               | -     | 503            | 503   | 476             | 476   | -             | -     | -             | -     |
| 15:00-15:59 | -             | -     | -             | -     | 632             | 632   | 534            | 534   | -               | -     | -             | -     | -             | -     |
| 16:00-16:59 | -             | -     | -             | -     | 632             | 632   | 646            | 646   | -               | -     | -             | -     | -             | -     |
| 17:00-17:59 | -             | -     | -             | -     | 594             | 594   | 582            | 582   | -               | -     | -             | -     | -             | -     |
| 18:00-18:59 | -             | -     | -             | -     | 436             | 436   | 500            | 500   | -               | -     | -             | -     | -             | -     |
| 19:00-19:59 | -             | -     | -             | -     | 358             | 358   | 367            | 367   | -               | -     | -             | -     | -             | -     |
| 20:00-20:59 | -             | -     | -             | -     | 312             | 312   | 338            | 338   | -               | -     | -             | -     | -             | -     |
| 21:00-21:59 | -             | -     | -             | -     | 214             | 214   | 230            | 230   | -               | -     | -             | -     | -             | -     |
| 22:00-22:59 | -             | -     | -             | -     | 106             | 106   | 118            | 118   | -               | -     | -             | -     | -             | -     |
| 23:00-23:59 | -             | -     | -             | -     | 64              | 64    | 70             | 70    | -               | -     | -             | -     | -             | -     |
| Daily Total | -             | -     | -             | -     | -               | -     | 7,859          | 7,859 | -               | -     | -             | -     | -             | -     |

|            |   |   |   |   |       |       |       |       |       |       |   |   |   |   |
|------------|---|---|---|---|-------|-------|-------|-------|-------|-------|---|---|---|---|
| AM Peak    | - | - | - | - | -     | -     | 566   | 566   | 528   | 528   | - | - | - | - |
| Hour       | - | - | - | - | -     | -     | 08:00 | 08:00 | 07:00 | 07:00 | - | - | - | - |
| MD Peak    | - | - | - | - | -     | -     | 528   | 528   | 504   | 504   | - | - | - | - |
| Hour       | - | - | - | - | -     | -     | 12:00 | 12:00 | 13:00 | 13:00 | - | - | - | - |
| PM Peak    | - | - | - | - | 632   | 632   | 646   | 646   | -     | -     | - | - | - | - |
| Hour       | - | - | - | - | 15:00 | 15:00 | 16:00 | 16:00 | -     | -     | - | - | - | - |
| Daily Peak | - | - | - | - | -     | -     | 646   | 646   | -     | -     | - | - | - | - |
| Hour       | - | - | - | - | -     | -     | 16:00 | 16:00 | -     | -     | - | - | - | - |
| % of Total | - | - | - | - | -     | -     | 8.2%  | 8.2%  | -     | -     | - | - | - | - |
| Daily Ave  | - | - | - | - | -     | -     | 327   | 327   | -     | -     | - | - | - | - |

|               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Seasonal Fctr |       |       |       |       | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 | 0.924 |       |       |       |       |
| Daily Fctr    |       |       |       |       | 0.948 | 0.948 | 0.948 | 0.948 | 0.914 | 0.914 |       |       |       |       |
| Axle Factor   |       |       |       |       | 0.489 | 0.489 | 0.489 | 0.489 | 0.489 | 0.489 |       |       |       |       |
| Pulse Fctr    |       |       |       |       | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 | 2.000 |       |       |       |       |
| Overall Fctr  | 0.000 | 0.000 | 0.000 | 0.000 | 0.857 | 0.857 | 0.857 | 0.857 | 0.826 | 0.826 | 0.000 | 0.000 | 0.000 | 0.000 |



| Hour        | Mon-Thurs Average |       | Mon-Fri Average |       | 7 Day Average |       | Estimated Annual Ave |       |
|-------------|-------------------|-------|-----------------|-------|---------------|-------|----------------------|-------|
|             | Undivided Hwy     | Total | Undivided Hwy   | Total | Undivided Hwy | Total | Undivided Hwy        | Total |
| 00:00-00:59 | 40                | 40    | -               | -     | -             | -     | 34                   | 34    |
| 01:00-01:59 | 13                | 13    | -               | -     | -             | -     | 11                   | 11    |
| 02:00-02:59 | 11                | 11    | -               | -     | -             | -     | 9                    | 9     |
| 03:00-03:59 | 13                | 13    | -               | -     | -             | -     | 11                   | 11    |
| 04:00-04:59 | 34                | 34    | -               | -     | -             | -     | 29                   | 29    |
| 05:00-05:59 | 99                | 99    | -               | -     | -             | -     | 83                   | 83    |
| 06:00-06:59 | 304               | 304   | -               | -     | -             | -     | 256                  | 256   |
| 07:00-07:59 | 538               | 538   | -               | -     | -             | -     | 453                  | 453   |
| 08:00-08:59 | 512               | 512   | -               | -     | -             | -     | 431                  | 431   |
| 09:00-09:59 | 432               | 432   | -               | -     | -             | -     | 363                  | 363   |
| 10:00-10:59 | 431               | 431   | -               | -     | -             | -     | 363                  | 363   |
| 11:00-11:59 | 467               | 467   | -               | -     | -             | -     | 393                  | 393   |
| 12:00-12:59 | 512               | 512   | -               | -     | -             | -     | 431                  | 431   |
| 13:00-13:59 | 490               | 490   | -               | -     | -             | -     | 412                  | 412   |
| 14:00-14:59 | 490               | 490   | -               | -     | -             | -     | 412                  | 412   |
| 15:00-15:59 | 583               | 583   | -               | -     | -             | -     | 499                  | 499   |
| 16:00-16:59 | 639               | 639   | -               | -     | -             | -     | 547                  | 547   |
| 17:00-17:59 | 588               | 588   | -               | -     | -             | -     | 504                  | 504   |
| 18:00-18:59 | 468               | 468   | -               | -     | -             | -     | 401                  | 401   |
| 19:00-19:59 | 363               | 363   | -               | -     | -             | -     | 311                  | 311   |
| 20:00-20:59 | 325               | 325   | -               | -     | -             | -     | 278                  | 278   |
| 21:00-21:59 | 222               | 222   | -               | -     | -             | -     | 190                  | 190   |
| 22:00-22:59 | 112               | 112   | -               | -     | -             | -     | 96                   | 96    |
| 23:00-23:59 | 67                | 67    | -               | -     | -             | -     | 57                   | 57    |
| Daily Total | 7,750             | 7,750 | -               | -     | -             | -     | 6,573                | 6,573 |

|            |       |       |   |   |   |   |       |       |
|------------|-------|-------|---|---|---|---|-------|-------|
| AM Peak    | 538   | 538   | - | - | - | - | 453   | 453   |
| Hour       | 07:00 | 07:00 | - | - | - | - | 07:00 | 07:00 |
| MD Peak    | 512   | 512   | - | - | - | - | 431   | 431   |
| Hour       | 12:00 | 12:00 | - | - | - | - | 12:00 | 12:00 |
| PM Peak    | 639   | 639   | - | - | - | - | 547   | 547   |
| Hour       | 16:00 | 16:00 | - | - | - | - | 16:00 | 16:00 |
| Daily Peak | 639   | 639   | - | - | - | - | 547   | 547   |
| Hour       | 16:00 | 16:00 | - | - | - | - | 16:00 | 16:00 |
| % of Total | 8.2%  | 8.2%  | - | - | - | - | 8.3%  | 8.3%  |
| Daily Ave  | 323   | 323   | - | - | - | - | 274   | 274   |

E

1050 vs. 966 now  
 583 vs. 585 now  
 18.7% to match  
 ~ SAME



# Wisconsin Department of Transportation

## Hourly Traffic Volume Report

2011-Aug-02 to 2011-Aug-05

72 Hour Count - Averages and Graphs Do Not Include All Days

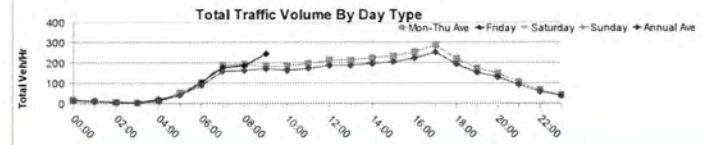
Coverage Count

|              |                                        |                       |   |
|--------------|----------------------------------------|-----------------------|---|
| Location     | ERIE ST NORTH OF CTH G CALEDONIA TNSHP | Segment ID            |   |
| Site #       | 511003                                 | Seasonal Factor Group | 2 |
| Region       | SE                                     | Daily Factor Group    | 2 |
| County       | RACINE                                 | Axle Factor Group     | 7 |
| Funct. Class | U Collector                            | Growth Factor Group   |   |

| Hour        | Sun           | Mon   | Tues 2011-08-02 | Wed 2011-08-03 | Thur 2011-08-04 | Fri 2011-08-05 | Sat           |
|-------------|---------------|-------|-----------------|----------------|-----------------|----------------|---------------|
|             | Undivided Hwy | Total | Undivided Hwy   | Total          | Undivided Hwy   | Total          | Undivided Hwy |
| 00:00-00:59 |               |       |                 | 18             | 20              | 15             |               |
| 01:00-01:59 |               |       |                 | 9              | 15              | 11             |               |
| 02:00-02:59 |               |       |                 | 6              | 7               | 8              |               |
| 03:00-03:59 |               |       |                 | 4              | 4               | 4              |               |
| 04:00-04:59 |               |       |                 | 11             | 14              | 20             |               |
| 05:00-05:59 |               |       |                 | 51             | 55              | 40             |               |
| 06:00-06:59 |               |       |                 | 104            | 103             | 103            |               |
| 07:00-07:59 |               |       |                 | 194            | 186             | 178            |               |
| 08:00-08:59 |               |       |                 | 219            | 168             | 187            |               |
| 09:00-09:59 |               |       |                 | 194            | 169             | 245            |               |
| 10:00-10:59 |               |       | 179             | 208            | 169             |                |               |
| 11:00-11:59 |               |       | 179             | 202            | 210             |                |               |
| 12:00-12:59 |               |       | 196             | 209            | 237             |                |               |
| 13:00-13:59 |               |       | 216             | 209            | 215             |                |               |
| 14:00-14:59 |               |       | 223             | 209            | 243             |                |               |
| 15:00-15:59 |               |       | 197             | 252            | 252             |                |               |
| 16:00-16:59 |               |       | 230             | 255            | 277             |                |               |
| 17:00-17:59 |               |       | 276             | 294            | 295             |                |               |
| 18:00-18:59 |               |       | 209             | 228            | 225             |                |               |
| 19:00-19:59 |               |       | 160             | 152            | 209             |                |               |
| 20:00-20:59 |               |       | 133             | 166            | 148             |                |               |
| 21:00-21:59 |               |       | 113             | 121            | 83              |                |               |
| 22:00-22:59 |               |       | 70              | 70             | 60              |                |               |
| 23:00-23:59 |               |       | 49              | 35             | 45              |                |               |
| Daily Total |               |       |                 | 3,418          | 3,409           |                |               |

|            |  |  |       |       |       |       |  |
|------------|--|--|-------|-------|-------|-------|--|
| AM Peak    |  |  |       | 219   | 186   | 245   |  |
| Hour       |  |  |       | 08:00 | 07:00 | 09:00 |  |
| MD Peak    |  |  | 223   | 209   | 243   |       |  |
| Hour       |  |  | 14:00 | 12:00 | 14:00 |       |  |
| PM Peak    |  |  | 276   | 294   | 295   |       |  |
| Hour       |  |  | 17:00 | 17:00 | 17:00 |       |  |
| Daily Peak |  |  |       | 294   | 295   |       |  |
| Hour       |  |  |       | 17:00 | 17:00 |       |  |
| % of Total |  |  |       | 8.6%  | 8.7%  |       |  |
| Daily Ave  |  |  |       | 142   | 142   |       |  |

|               |       |       |       |       |       |       |       |
|---------------|-------|-------|-------|-------|-------|-------|-------|
| Seasonal Fctr |       | 0.943 | 0.943 |       | 0.943 | 0.943 |       |
| Daily Fctr    |       | 0.955 | 0.955 |       | 0.913 | 0.872 |       |
| Axle Factor   |       | 0.500 | 0.500 |       | 0.500 | 0.500 |       |
| Pulse Fctr    |       | 2.000 | 2.000 |       | 2.000 | 2.000 |       |
| Overall Fctr  | 0.000 | 0.000 | 0.000 | 0.901 | 0.861 | 0.822 | 0.000 |



| Hour        | Mon-Thurs Average | Mon-Fri Average | 7 Day Average | Estimated Annual Ave |
|-------------|-------------------|-----------------|---------------|----------------------|
|             | Undivided Hwy     | Undivided Hwy   | Undivided Hwy | Undivided Hwy        |
| 00:00-00:59 | 18                | 17              | 17            | 15                   |
| 01:00-01:59 | 12                | 12              | 12            | 10                   |
| 02:00-02:59 | 7                 | 7               | 7             | 6                    |
| 03:00-03:59 | 4                 | 4               | 4             | 3                    |
| 04:00-04:59 | 13                | 15              | 15            | 13                   |
| 05:00-05:59 | 53                | 49              | 49            | 42                   |
| 06:00-06:59 | 104               | 103             | 103           | 88                   |
| 07:00-07:59 | 190               | 186             | 186           | 159                  |
| 08:00-08:59 | 194               | 191             | 191           | 163                  |
| 09:00-09:59 | 182               | 203             | 203           | 172                  |
| 10:00-10:59 | 185               | 185             | 185           | 163                  |
| 11:00-11:59 | 197               | 197             | 197           | 173                  |
| 12:00-12:59 | 214               | 214             | 214           | 188                  |
| 13:00-13:59 | 213               | 213             | 213           | 188                  |
| 14:00-14:59 | 225               | 225             | 225           | 198                  |
| 15:00-15:59 | 234               | 234             | 234           | 205                  |
| 16:00-16:59 | 254               | 254             | 254           | 223                  |
| 17:00-17:59 | 288               | 288             | 288           | 253                  |
| 18:00-18:59 | 221               | 221             | 221           | 194                  |
| 19:00-19:59 | 174               | 174             | 174           | 152                  |
| 20:00-20:59 | 149               | 149             | 149           | 131                  |
| 21:00-21:59 | 106               | 106             | 106           | 93                   |
| 22:00-22:59 | 67                | 67              | 67            | 59                   |
| 23:00-23:59 | 43                | 43              | 43            | 38                   |
| Daily Total | 3,344             | 3,344           | 3,344         | 2,928                |

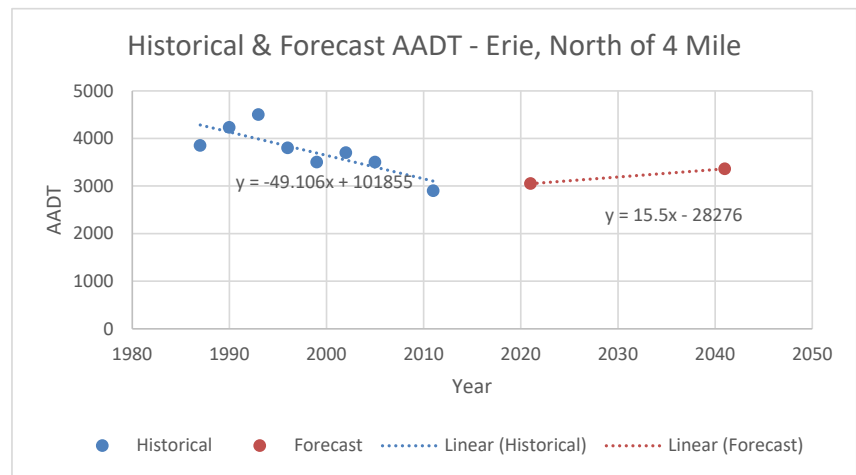
|            |       |       |       |       |
|------------|-------|-------|-------|-------|
| AM Peak    | 194   | 194   | 203   | 172   |
| Hour       | 08:00 | 08:00 | 09:00 | 09:00 |
| MD Peak    | 225   | 225   |       | 198   |
| Hour       | 14:00 | 14:00 |       | 14:00 |
| PM Peak    | 288   | 288   |       | 253   |
| Hour       | 17:00 | 17:00 |       | 17:00 |
| Daily Peak | 288   | 288   |       | 253   |
| Hour       | 17:00 | 17:00 |       | 17:00 |
| % of Total | 8.6%  | 8.6%  |       | 8.7%  |
| Daily Ave  | 139   | 139   |       | 122   |

2

## **Historical Traffic Trends & Forecast**

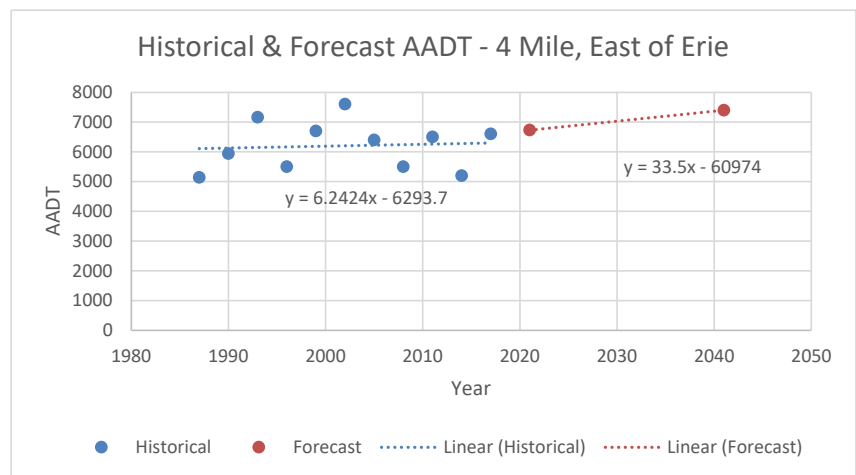
#### 511003 - Erie, North of 4 Mile

|      |      |       |
|------|------|-------|
| 1987 | 3850 |       |
| 1990 | 4230 |       |
| 1993 | 4500 |       |
| 1996 | 3800 |       |
| 1999 | 3500 |       |
| 2002 | 3700 |       |
| 2005 | 3500 |       |
| 2011 | 2900 |       |
| 2021 | 3050 | 0.52% |
| 2041 | 3360 | 0.51% |



#### 511002 - 4 Mile, East of Erie









|      |      |       |
|------|------|-------|
| 1987 | 5140 |       |
| 1990 | 5940 |       |
| 1993 | 7160 |       |
| 1996 | 5500 |       |
| 1999 | 6700 |       |
| 2002 | 7600 |       |
| 2005 | 6400 |       |
| 2008 | 5500 |       |
| 2011 | 6500 |       |
| 2014 | 5200 |       |
| 2017 | 6600 |       |
| 2021 | 6730 | 0.49% |
| 2041 | 7400 | 0.50% |



## **Year 2021 Background Traffic Analysis Outputs**

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL   | NBT                                                                               | NBR                                                                               | SBL   | SBT                                                                               | SBR                                                                               |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations     |  |  |      |  |  |      |       |  |  |       |  |  |
| Traffic Volume (vph)    | 65                                                                                | 310                                                                               | 50   | 5                                                                                 | 225                                                                               | 30   | 50    | 40                                                                                | 15                                                                                | 70    | 65                                                                                | 110                                                                               |
| Future Volume (vph)     | 65                                                                                | 310                                                                               | 50   | 5                                                                                 | 225                                                                               | 30   | 50    | 40                                                                                | 15                                                                                | 70    | 65                                                                                | 110                                                                               |
| 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)     | 95                                                                                |                                                                                   | 0    | 100                                                                               |                                                                                   | 0    | 0     |                                                                                   | 0                                                                                 | 0     |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0    | 1                                                                                 |                                                                                   | 0    | 0     |                                                                                   | 0                                                                                 | 0     |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |      | 50                                                                                |                                                                                   |      | 50    |                                                                                   |                                                                                   | 50    |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00 | 1.00                                                                              | 1.00                                                                              | 1.00 | 1.00  | 1.00                                                                              | 1.00                                                                              | 1.00  | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |       |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Frt                     | 0.979                                                                             |                                                                                   |      | 0.982                                                                             |                                                                                   |      | 0.981 |                                                                                   |                                                                                   | 0.939 |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |      | 0.950                                                                             |                                                                                   |      |       | 0.977                                                                             |                                                                                   |       | 0.986                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1703                                                                              | 1755                                                                              | 0    | 1770                                                                              | 1829                                                                              | 0    | 0     | 1671                                                                              | 0                                                                                 | 0     | 1691                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |      | 0.950                                                                             |                                                                                   |      |       | 0.977                                                                             |                                                                                   |       | 0.986                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1703                                                                              | 1755                                                                              | 0    | 1770                                                                              | 1829                                                                              | 0    | 0     | 1671                                                                              | 0                                                                                 | 0     | 1691                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |      |                                                                                   | 35                                                                                |      |       | 30                                                                                |                                                                                   |       | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |      |                                                                                   | 167                                                                               |      |       | 241                                                                               |                                                                                   |       | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |      |                                                                                   | 3.3                                                                               |      |       | 5.5                                                                               |                                                                                   |       | 14.0                                                                              |                                                                                   |
| 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 (%)      | 6%                                                                                | 6%                                                                                | 6%   | 2%                                                                                | 2%                                                                                | 2%   | 9%    | 9%                                                                                | 9%                                                                                | 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%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 71                                                                                | 337                                                                               | 54   | 5                                                                                 | 245                                                                               | 33   | 54    | 43                                                                                | 16                                                                                | 76    | 71                                                                                | 120                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |       |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 71                                                                                | 391                                                                               | 0    | 5                                                                                 | 278                                                                               | 0    | 0     | 113                                                                               | 0                                                                                 | 0     | 267                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |      | Stop                                                                              |                                                                                   |      | Stop  |                                                                                   |                                                                                   | Stop  |                                                                                   |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

AM Peak

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Synchro 11 Report









HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 16.8

Intersection LOS C

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR  | WBL                                                                                 | WBT                                                                                 | WBR  | NBL  | NBT                                                                                 | NBR                                                                                 | SBL  | SBT                                                                                 | SBR                                                                                 |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Configurations |  |  |      |  |  |      |      |  |  |      |  |  |
| Traffic Vol, veh/h  | 65                                                                                  | 310                                                                                 | 50   | 5                                                                                   | 225                                                                                 | 30   | 50   | 40                                                                                  | 15                                                                                  | 70   | 65                                                                                  | 110                                                                                 |
| Future Vol, veh/h   | 65                                                                                  | 310                                                                                 | 50   | 5                                                                                   | 225                                                                                 | 30   | 50   | 40                                                                                  | 15                                                                                  | 70   | 65                                                                                  | 110                                                                                 |
| Peak Hour Factor    | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92 | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92                                                                                | 0.92                                                                                |
| Heavy Vehicles, %   | 6                                                                                   | 6                                                                                   | 6    | 2                                                                                   | 2                                                                                   | 2    | 9    | 9                                                                                   | 9                                                                                   | 4    | 4                                                                                   | 4                                                                                   |
| Mvmt Flow           | 71                                                                                  | 337                                                                                 | 54   | 5                                                                                   | 245                                                                                 | 33   | 54   | 43                                                                                  | 16                                                                                  | 76   | 71                                                                                  | 120                                                                                 |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    | 0    | 1                                                                                   | 0                                                                                   | 0    | 1                                                                                   | 0                                                                                   |

| Approach                   | EB   | WB   | NB | SB   |
|----------------------------|------|------|----|------|
| Opposing Approach          | WB   | EB   | SB | NB   |
| Opposing Lanes             | 2    | 2    | 1  | 1    |
| Conflicting Approach Left  | SB   | NB   | EB | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2  | 2    |
| Conflicting Approach Right | NB   | SB   | WB | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2  | 2    |
| HCM Control Delay          | 20.1 | 15.6 | 12 | 14.5 |
| HCM LOS                    | C    | C    | B  | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 48%   | 100%  | 0%    | 100%  | 0%    | 29%   |
| Vol Thru, %            | 38%   | 0%    | 86%   | 0%    | 88%   | 27%   |
| Vol Right, %           | 14%   | 0%    | 14%   | 0%    | 12%   | 45%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 105   | 65    | 360   | 5     | 255   | 245   |
| LT Vol                 | 50    | 65    | 0     | 5     | 0     | 70    |
| Through Vol            | 40    | 0     | 310   | 0     | 225   | 65    |
| RT Vol                 | 15    | 0     | 50    | 0     | 30    | 110   |
| Lane Flow Rate         | 114   | 71    | 391   | 5     | 277   | 266   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.221 | 0.136 | 0.687 | 0.011 | 0.504 | 0.461 |
| Departure Headway (Hd) | 6.963 | 6.927 | 6.318 | 7.142 | 6.546 | 6.238 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 515   | 520   | 575   | 503   | 552   | 578   |
| Service Time           | 5.018 | 4.638 | 4.029 | 4.855 | 4.26  | 4.282 |
| HCM Lane V/C Ratio     | 0.221 | 0.137 | 0.68  | 0.01  | 0.502 | 0.46  |
| HCM Control Delay      | 12    | 10.7  | 21.8  | 9.9   | 15.7  | 14.5  |
| HCM Lane LOS           | B     | B     | C     | A     | C     | B     |
| HCM 95th-ile Q         | 0.8   | 0.5   | 5.3   | 0     | 2.8   | 2.4   |



















AM Peak

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Synchro 11 Report

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 105                                                                               | 255                                                                               | 120                                                                               | 5                                                                                 | 265                                                                               | 55                                                                                | 75                                                                                | 65                                                                                | 5                                                                                 | 40                                                                                | 60                                                                                | 90                                                                                |
| Future Volume (vph)     | 105                                                                               | 255                                                                               | 120                                                                               | 5                                                                                 | 265                                                                               | 55                                                                                | 75                                                                                | 65                                                                                | 5                                                                                 | 40                                                                                | 60                                                                                | 90                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.952                                                                             |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.996                                                                             |                                                                                   |                                                                                   | 0.936                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.975                                                                             |                                                                                   |                                                                                   | 0.990                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1757                                                                              | 0                                                                                 | 0                                                                                 | 1661                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.975                                                                             |                                                                                   |                                                                                   | 0.990                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1757                                                                              | 0                                                                                 | 0                                                                                 | 1661                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |
| 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 (%)      | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 5%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 109                                                                               | 266                                                                               | 125                                                                               | 5                                                                                 | 276                                                                               | 57                                                                                | 78                                                                                | 68                                                                                | 5                                                                                 | 42                                                                                | 63                                                                                | 94                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 109                                                                               | 391                                                                               | 0                                                                                 | 5                                                                                 | 333                                                                               | 0                                                                                 | 0                                                                                 | 151                                                                               | 0                                                                                 | 0                                                                                 | 199                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

PM Peak

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Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 16.9

Intersection LOS C

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↰    | ↱    |      | ↰    | ↱    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 105  | 255  | 120  | 5    | 265  | 55   | 75   | 65   | 5    | 40   | 60   | 90   |
| Future Vol, veh/h   | 105  | 255  | 120  | 5    | 265  | 55   | 75   | 65   | 5    | 40   | 60   | 90   |
| 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 |
| Heavy Vehicles, %   | 3    | 3    | 3    | 3    | 3    | 3    | 5    | 5    | 5    | 6    | 6    | 6    |
| Mvmt Flow           | 109  | 266  | 125  | 5    | 276  | 57   | 78   | 68   | 5    | 42   | 63   | 94   |
| Number of Lanes     | 1    | 1    | 0    | 1    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 18.5 | 18.3 | 12.9 | 13.3 |
| HCM LOS                    | C    | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 52%   | 100%  | 0%    | 100%  | 0%    | 21%   |
| Vol Thru, %            | 45%   | 0%    | 68%   | 0%    | 83%   | 32%   |
| Vol Right, %           | 3%    | 0%    | 32%   | 0%    | 17%   | 47%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 145   | 105   | 375   | 5     | 320   | 190   |
| LT Vol                 | 75    | 105   | 0     | 5     | 0     | 40    |
| Through Vol            | 65    | 0     | 255   | 0     | 265   | 60    |
| RT Vol                 | 5     | 0     | 120   | 0     | 55    | 90    |
| Lane Flow Rate         | 151   | 109   | 391   | 5     | 333   | 198   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.293 | 0.21  | 0.67  | 0.01  | 0.599 | 0.36  |
| Departure Headway (Hd) | 6.986 | 6.912 | 6.174 | 7.098 | 6.464 | 6.549 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 514   | 523   | 590   | 504   | 560   | 548   |
| Service Time           | 5.04  | 4.612 | 3.874 | 4.839 | 4.205 | 4.599 |
| HCM Lane V/C Ratio     | 0.294 | 0.208 | 0.663 | 0.01  | 0.595 | 0.361 |
| HCM Control Delay      | 12.9  | 11.4  | 20.5  | 9.9   | 18.4  | 13.3  |
| HCM Lane LOS           | B     | B     | C     | A     | C     | B     |
| HCM 95th-ile Q         | 1.2   | 0.8   | 5     | 0     | 3.9   | 1.6   |

PM Peak



















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Synchro 11 Report

## **Year 2041 Background Traffic Analysis Outputs**

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 40                                                                                | 340                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 55                                                                                | 45                                                                                | 15                                                                                | 75                                                                                | 70                                                                                | 65                                                                                |
| Future Volume (vph)     | 40                                                                                | 340                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 55                                                                                | 45                                                                                | 15                                                                                | 75                                                                                | 70                                                                                | 65                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.979                                                                             |                                                                                   |                                                                                   | 0.984                                                                             |                                                                                   |                                                                                   | 0.983                                                                             |                                                                                   |                                                                                   | 0.958                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.977                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1703                                                                              | 1755                                                                              | 0                                                                                 | 1770                                                                              | 1833                                                                              | 0                                                                                 | 0                                                                                 | 1674                                                                              | 0                                                                                 | 0                                                                                 | 1719                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.977                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1703                                                                              | 1755                                                                              | 0                                                                                 | 1770                                                                              | 1833                                                                              | 0                                                                                 | 0                                                                                 | 1674                                                                              | 0                                                                                 | 0                                                                                 | 1719                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |
| 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 (%)      | 6%                                                                                | 6%                                                                                | 6%                                                                                | 2%                                                                                | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 9%                                                                                | 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%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 43                                                                                | 370                                                                               | 60                                                                                | 5                                                                                 | 272                                                                               | 33                                                                                | 60                                                                                | 49                                                                                | 16                                                                                | 82                                                                                | 76                                                                                | 71                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 43                                                                                | 430                                                                               | 0                                                                                 | 5                                                                                 | 305                                                                               | 0                                                                                 | 0                                                                                 | 125                                                                               | 0                                                                                 | 0                                                                                 | 229                                                                               | 0                                                                                 |
| Sign Control            |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

AM Peak

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Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 19

Intersection LOS C

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h  | 40   | 340  | 55   | 5    | 250  | 30   | 55   | 45   | 15   | 75   | 70   | 65   |
| Future Vol, veh/h   | 40   | 340  | 55   | 5    | 250  | 30   | 55   | 45   | 15   | 75   | 70   | 65   |
| Peak Hour Factor    | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, %   | 6    | 6    | 6    | 2    | 2    | 2    | 9    | 9    | 9    | 4    | 4    | 4    |
| Mvmt Flow           | 43   | 370  | 60   | 5    | 272  | 33   | 60   | 49   | 16   | 82   | 76   | 71   |
| Number of Lanes     | 1    | 1    | 0    | 1    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 24.4 | 16.8 | 12.4 | 14.2 |
| HCM LOS                    | C    | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 48%   | 100%  | 0%    | 100%  | 0%    | 36%   |
| Vol Thru, %            | 39%   | 0%    | 86%   | 0%    | 89%   | 33%   |
| Vol Right, %           | 13%   | 0%    | 14%   | 0%    | 11%   | 31%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 115   | 40    | 395   | 5     | 280   | 210   |
| LT Vol                 | 55    | 40    | 0     | 5     | 0     | 75    |
| Through Vol            | 45    | 0     | 340   | 0     | 250   | 70    |
| RT Vol                 | 15    | 0     | 55    | 0     | 30    | 65    |
| Lane Flow Rate         | 125   | 43    | 429   | 5     | 304   | 228   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.245 | 0.084 | 0.754 | 0.011 | 0.549 | 0.414 |
| Departure Headway (Hd) | 7.061 | 6.93  | 6.321 | 7.082 | 6.495 | 6.533 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 507   | 520   | 575   | 505   | 554   | 550   |
| Service Time           | 5.119 | 4.63  | 4.021 | 4.827 | 4.239 | 4.584 |
| HCM Lane V/C Ratio     | 0.247 | 0.083 | 0.746 | 0.01  | 0.549 | 0.415 |
| HCM Control Delay      | 12.4  | 10.3  | 25.8  | 9.9   | 16.9  | 14.2  |
| HCM Lane LOS           | B     | B     | D     | A     | C     | B     |
| HCM 95th-ile Q         | 1     | 0.3   | 6.7   | 0     | 3.3   | 2     |

AM Peak



















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Synchro 11 Report



Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 60                                                                                | 280                                                                               | 130                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 85                                                                                | 70                                                                                | 5                                                                                 | 45                                                                                | 65                                                                                | 55                                                                                |
| Future Volume (vph)     | 60                                                                                | 280                                                                               | 130                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 85                                                                                | 70                                                                                | 5                                                                                 | 45                                                                                | 65                                                                                | 55                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     | 0.953                                                                             |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.996                                                                             |                                                                                   |                                                                                   | 0.955                                                                             |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.987                                                                             |                                                                                   |                                                                                   |
| Satd. Flow (prot)       | 1752                                                                              | 1758                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1690                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.987                                                                             |                                                                                   |                                                                                   |
| Satd. Flow (perm)       | 1752                                                                              | 1758                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1690                                                                              | 0                                                                                 |
| Link Speed (mph)        | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   |
| Link Distance (ft)      | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |                                                                                   |
| Travel Time (s)         | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   |
| 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 (%)      | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 5%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   |
| Adj. Flow (vph)         | 63                                                                                | 292                                                                               | 135                                                                               | 5                                                                                 | 302                                                                               | 63                                                                                | 89                                                                                | 73                                                                                | 5                                                                                 | 47                                                                                | 68                                                                                | 57                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 63                                                                                | 427                                                                               | 0                                                                                 | 5                                                                                 | 365                                                                               | 0                                                                                 | 0                                                                                 | 167                                                                               | 0                                                                                 | 0                                                                                 | 172                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

PM Peak

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Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 19.4

Intersection LOS C

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖    | ↖    |      | ↖    | ↖    |      |      | ↖    |      |      | ↖    | ↖    |
| Traffic Vol, veh/h  | 60   | 280  | 130  | 5    | 290  | 60   | 85   | 70   | 5    | 45   | 65   | 55   |
| Future Vol, veh/h   | 60   | 280  | 130  | 5    | 290  | 60   | 85   | 70   | 5    | 45   | 65   | 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 |
| Heavy Vehicles, %   | 3    | 3    | 3    | 3    | 3    | 3    | 5    | 5    | 5    | 6    | 6    | 6    |
| Mvmt Flow           | 63   | 292  | 135  | 5    | 302  | 63   | 89   | 73   | 5    | 47   | 68   | 57   |
| Number of Lanes     | 1    | 1    | 0    | 1    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 22.6 | 20.5 | 13.6 | 13.3 |
| HCM LOS                    | C    | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 53%   | 100%  | 0%    | 100%  | 0%    | 27%   |
| Vol Thru, %            | 44%   | 0%    | 68%   | 0%    | 83%   | 39%   |
| Vol Right, %           | 3%    | 0%    | 32%   | 0%    | 17%   | 33%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 160   | 60    | 410   | 5     | 350   | 165   |
| LT Vol                 | 85    | 60    | 0     | 5     | 0     | 45    |
| Through Vol            | 70    | 0     | 280   | 0     | 290   | 65    |
| RT Vol                 | 5     | 0     | 130   | 0     | 60    | 55    |
| Lane Flow Rate         | 167   | 62    | 427   | 5     | 365   | 172   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.328 | 0.12  | 0.735 | 0.01  | 0.655 | 0.328 |
| Departure Headway (Hd) | 7.082 | 6.932 | 6.195 | 7.096 | 6.463 | 6.861 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 507   | 517   | 585   | 504   | 558   | 523   |
| Service Time           | 5.138 | 4.677 | 3.94  | 4.841 | 4.207 | 4.917 |
| HCM Lane V/C Ratio     | 0.329 | 0.12  | 0.73  | 0.01  | 0.654 | 0.329 |
| HCM Control Delay      | 13.6  | 10.6  | 24.3  | 9.9   | 20.7  | 13.3  |
| HCM Lane LOS           | B     | B     | C     | A     | C     | B     |
| HCM 95th-tile Q        | 1.4   | 0.4   | 6.3   | 0     | 4.7   | 1.4   |

PM Peak



















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Synchro 11 Report

## **Year 2021 Build Traffic Analysis Outputs**

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 55                                                                                | 315                                                                               | 50                                                                                | 5                                                                                 | 225                                                                               | 20                                                                                | 55                                                                                | 35                                                                                | 15                                                                                | 50                                                                                | 45                                                                                | 75                                                                                |
| Future Volume (vph)     | 55                                                                                | 315                                                                               | 50                                                                                | 5                                                                                 | 225                                                                               | 20                                                                                | 55                                                                                | 35                                                                                | 15                                                                                | 50                                                                                | 45                                                                                | 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     | 0.980                                                                             |                                                                                   |                                                                                   | 0.988                                                                             |                                                                                   |                                                                                   | 0.981                                                                             |                                                                                   |                                                                                   | 0.940                                                                             |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1703                                                                              | 1757                                                                              | 0                                                                                 | 1770                                                                              | 1840                                                                              | 0                                                                                 | 0                                                                                 | 1666                                                                              | 0                                                                                 | 0                                                                                 | 1693                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1703                                                                              | 1757                                                                              | 0                                                                                 | 1770                                                                              | 1840                                                                              | 0                                                                                 | 0                                                                                 | 1666                                                                              | 0                                                                                 | 0                                                                                 | 1693                                                                              | 0                                                                                 |
| Link Speed (mph)        | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   |
| Link Distance (ft)      | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |                                                                                   |
| Travel Time (s)         | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   |
| 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 (%)      | 6%                                                                                | 6%                                                                                | 6%                                                                                | 2%                                                                                | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 9%                                                                                | 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%                                                                                |                                                                                   |                                                                                   |
| Adj. Flow (vph)         | 60                                                                                | 342                                                                               | 54                                                                                | 5                                                                                 | 245                                                                               | 22                                                                                | 60                                                                                | 38                                                                                | 16                                                                                | 54                                                                                | 49                                                                                | 82                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 60                                                                                | 396                                                                               | 0                                                                                 | 5                                                                                 | 267                                                                               | 0                                                                                 | 0                                                                                 | 114                                                                               | 0                                                                                 | 0                                                                                 | 185                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized







HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 14.8

Intersection LOS B

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR  | WBL                                                                                 | WBT                                                                                 | WBR  | NBL  | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 | SBR  |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h  | 55                                                                                  | 315                                                                                 | 50   | 5                                                                                   | 225                                                                                 | 20   | 55   | 35                                                                                  | 15   | 50   | 45                                                                                  | 75   |
| Future Vol, veh/h   | 55                                                                                  | 315                                                                                 | 50   | 5                                                                                   | 225                                                                                 | 20   | 55   | 35                                                                                  | 15   | 50   | 45                                                                                  | 75   |
| Peak Hour Factor    | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92 | 0.92                                                                                | 0.92 | 0.92 | 0.92                                                                                | 0.92 |
| Heavy Vehicles, %   | 6                                                                                   | 6                                                                                   | 6    | 2                                                                                   | 2                                                                                   | 2    | 9    | 9                                                                                   | 9    | 4    | 4                                                                                   | 4    |
| Mvmt Flow           | 60                                                                                  | 342                                                                                 | 54   | 5                                                                                   | 245                                                                                 | 22   | 60   | 38                                                                                  | 16   | 54   | 49                                                                                  | 82   |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 17.6 | 13.6 | 11.3 | 11.8 |
| HCM LOS                    | C    | B    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 52%   | 100%  | 0%    | 100%  | 0%    | 29%   |
| Vol Thru, %            | 33%   | 0%    | 86%   | 0%    | 92%   | 26%   |
| Vol Right, %           | 14%   | 0%    | 14%   | 0%    | 8%    | 44%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 105   | 55    | 365   | 5     | 245   | 170   |
| LT Vol                 | 55    | 55    | 0     | 5     | 0     | 50    |
| Through Vol            | 35    | 0     | 315   | 0     | 225   | 45    |
| RT Vol                 | 15    | 0     | 50    | 0     | 20    | 75    |
| Lane Flow Rate         | 114   | 60    | 397   | 5     | 266   | 185   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.206 | 0.107 | 0.645 | 0.01  | 0.449 | 0.309 |
| Departure Headway (Hd) | 6.489 | 6.457 | 5.852 | 6.638 | 6.072 | 6.011 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 550   | 554   | 615   | 537   | 591   | 595   |
| Service Time           | 4.57  | 4.212 | 3.607 | 4.403 | 3.836 | 4.084 |
| HCM Lane V/C Ratio     | 0.207 | 0.108 | 0.646 | 0.009 | 0.45  | 0.311 |
| HCM Control Delay      | 11.3  | 10    | 18.7  | 9.5   | 13.7  | 11.8  |
| HCM Lane LOS           | B     | A     | C     | A     | B     | B     |
| HCM 95th-tile Q        | 0.8   | 0.4   | 4.7   | 0     | 2.3   | 1.3   |

Lanes, Volumes, Timings  
110: East Drwy & 4 Mile Road

09/16/2021

|                         | →            | ↖    | ↗    | ←     | ↖    | ↗     |
|-------------------------|--------------|------|------|-------|------|-------|
| Lane Group              | EBT          | EBR  | WBL  | WBT   | NBL  | NBR   |
| Lane Configurations     | ↖            |      |      | ↗     |      | ↖     |
| Traffic Volume (vph)    | 370          | 10   | 5    | 250   | 0    | 5     |
| Future Volume (vph)     | 370          | 10   | 5    | 250   | 0    | 5     |
| 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    |       | 0    | 1     |
| Taper Length (ft)       |              |      | 50   |       | 50   |       |
| Lane Util. Factor       | 1.00         | 1.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| Ped Bike Factor         |              |      |      |       |      |       |
| Frt                     | 0.996        |      |      |       |      | 0.865 |
| Flt Protected           |              |      |      | 0.999 |      |       |
| Satd. Flow (prot)       | 1785         | 0    | 0    | 1861  | 0    | 1611  |
| Flt Permitted           |              |      |      | 0.999 |      |       |
| Satd. Flow (perm)       | 1785         | 0    | 0    | 1861  | 0    | 1611  |
| Link Speed (mph)        | 35           |      |      | 35    | 25   |       |
| Link Distance (ft)      | 167          |      |      | 699   | 91   |       |
| Travel Time (s)         | 3.3          |      |      | 13.6  | 2.5  |       |
| Confl. Peds. (#/hr)     |              |      |      |       |      |       |
| Confl. Bikes (#/hr)     |              |      |      |       |      |       |
| Peak Hour Factor        | 0.92         | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  |
| Growth Factor           | 100%         | 100% | 100% | 100%  | 100% | 100%  |
| Heavy Vehicles (%)      | 6%           | 6%   | 2%   | 2%    | 2%   | 2%    |
| Bus Blockages (#/hr)    | 0            | 0    | 0    | 0     | 0    | 0     |
| Parking (#/hr)          |              |      |      |       |      |       |
| Mid-Block Traffic (%)   | 0%           |      |      | 0%    | 0%   |       |
| Adj. Flow (vph)         | 402          | 11   | 5    | 272   | 0    | 5     |
| Shared Lane Traffic (%) |              |      |      |       |      |       |
| Lane Group Flow (vph)   | 413          | 0    | 0    | 277   | 0    | 5     |
| Sign Control            | Free         |      |      | Free  | Stop |       |
| Intersection Summary    |              |      |      |       |      |       |
| Area Type:              | Other        |      |      |       |      |       |
| Control Type:           | Unsignalized |      |      |       |      |       |

HCM 6th TWSC  
110: East Drwy & 4 Mile Road

09/16/2021

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↖    |      |      | ↗    |      | ↖    |
| Traffic Vol, veh/h       | 370  | 10   | 5    | 250  | 0    | 5    |
| Future Vol, veh/h        | 370  | 10   | 5    | 250  | 0    | 5    |
| 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         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 6    | 6    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 402  | 11   | 5    | 272  | 0    | 5    |











| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 413    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1146   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1146   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 10.6 |
| HCM LOS              |    |     | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 643   | -   | -   | 1146  | -   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | 0.005 | -   |
| HCM Control Delay (s) | 10.6  | -   | -   | 8.2   | 0   |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |





Lanes, Volumes, Timings  
120: Erie Street & South Drwy

09/16/2021

|                         |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations     |  |  |  |                                                                                   |                                                                                   |  |
| Traffic Volume (vph)    | 5                                                                                 | 5                                                                                 | 100                                                                               | 5                                                                                 | 1                                                                                 | 100                                                                               |
| Future Volume (vph)     | 5                                                                                 | 5                                                                                 | 100                                                                               | 5                                                                                 | 1                                                                                 | 100                                                                               |
| 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           | 1                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.850                                                                             | 0.994                                                                             |                                                                                   |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Satd. Flow (prot)       | 1770                                                                              | 1583                                                                              | 1733                                                                              | 0                                                                                 | 0                                                                                 | 1827                                                                              |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Satd. Flow (perm)       | 1770                                                                              | 1583                                                                              | 1733                                                                              | 0                                                                                 | 0                                                                                 | 1827                                                                              |
| Link Speed (mph)        | 25                                                                                |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |
| Link Distance (ft)      | 116                                                                               |                                                                                   | 460                                                                               |                                                                                   |                                                                                   | 241                                                                               |
| Travel Time (s)         | 3.2                                                                               |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 5.5                                                                               |
| Confl. Peds. (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Confl. Bikes (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Growth Factor           | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              |
| Heavy Vehicles (%)      | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 4%                                                                                | 4%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Adj. Flow (vph)         | 5                                                                                 | 5                                                                                 | 109                                                                               | 5                                                                                 | 1                                                                                 | 109                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 5                                                                                 | 5                                                                                 | 114                                                                               | 0                                                                                 | 0                                                                                 | 110                                                                               |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
120: Erie Street & South Drwy

09/16/2021

| Intersection             |                                                                                     |                                                                                     |                                                                                     |      |      |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5                                                                                 |                                                                                     |                                                                                     |      |      |                                                                                     |
| Movement                 | WBL                                                                                 | WBR                                                                                 | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 |
| Lane Configurations      |  |  |  |      |      |  |
| Traffic Vol, veh/h       | 5                                                                                   | 5                                                                                   | 100                                                                                 | 5    | 1    | 100                                                                                 |
| Future Vol, veh/h        | 5                                                                                   | 5                                                                                   | 100                                                                                 | 5    | 1    | 100                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0    | 0    | 0                                                                                   |
| Sign Control             | Stop                                                                                | Stop                                                                                | Free                                                                                | Free | Free | Free                                                                                |
| RT Channelized           | -                                                                                   | None                                                                                | -                                                                                   | None | -    | None                                                                                |
| Storage Length           | 0                                                                                   | 0                                                                                   | -                                                                                   | -    | -    | -                                                                                   |
| Veh in Median Storage, # | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Grade, %                 | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Peak Hour Factor         | 92                                                                                  | 92                                                                                  | 92                                                                                  | 92   | 92   | 92                                                                                  |
| Heavy Vehicles, %        | 2                                                                                   | 2                                                                                   | 9                                                                                   | 9    | 4    | 4                                                                                   |
| Mvmt Flow                | 5                                                                                   | 5                                                                                   | 109                                                                                 | 5    | 1    | 109                                                                                 |



















| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 223    | 112    | 0      |
| Stage 1              | 112    | -      | -      |
| Stage 2              | 111    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 765    | 941    | -      |
| Stage 1              | 913    | -      | -      |
| Stage 2              | 914    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 764    | 941    | -      |
| Mov Cap-2 Maneuver   | 764    | -      | -      |
| Stage 1              | 913    | -      | -      |
| Stage 2              | 913    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.3 | 0  | 0.1 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL   | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h)      | -   | -   | 764   | 941   | 1463  | -   |
| HCM Lane V/C Ratio    | -   | -   | 0.007 | 0.006 | 0.001 | -   |
| HCM Control Delay (s) | -   | -   | 9.7   | 8.8   | 7.5   | 0   |
| HCM Lane LOS          | -   | -   | A     | A     | A     | A   |
| HCM 95th %tile Q(veh) | -   | -   | 0     | 0     | 0     | -   |

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 65                                                                                | 265                                                                               | 125                                                                               | 5                                                                                 | 265                                                                               | 30                                                                                | 85                                                                                | 50                                                                                | 5                                                                                 | 30                                                                                | 50                                                                                | 65                                                                                |
| Future Volume (vph)     | 65                                                                                | 265                                                                               | 125                                                                               | 5                                                                                 | 265                                                                               | 30                                                                                | 85                                                                                | 50                                                                                | 5                                                                                 | 30                                                                                | 50                                                                                | 65                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     | 0.952                                                                             |                                                                                   |                                                                                   | 0.985                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.995                                                                             |                                                                                   |                                                                                   | 0.939                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.970                                                                             |                                                                                   |                                                                                   | 0.990                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1817                                                                              | 0                                                                                 | 0                                                                                 | 1746                                                                              | 0                                                                                 | 0                                                                                 | 1666                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.970                                                                             |                                                                                   |                                                                                   | 0.990                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1817                                                                              | 0                                                                                 | 0                                                                                 | 1746                                                                              | 0                                                                                 | 0                                                                                 | 1666                                                                              | 0                                                                                 |
| Link Speed (mph)        | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   |
| Link Distance (ft)      | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |                                                                                   |
| Travel Time (s)         | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   |
| 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 (%)      | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 5%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   |
| Adj. Flow (vph)         | 68                                                                                | 276                                                                               | 130                                                                               | 5                                                                                 | 276                                                                               | 31                                                                                | 89                                                                                | 52                                                                                | 5                                                                                 | 31                                                                                | 52                                                                                | 68                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 68                                                                                | 406                                                                               | 0                                                                                 | 5                                                                                 | 307                                                                               | 0                                                                                 | 0                                                                                 | 146                                                                               | 0                                                                                 | 0                                                                                 | 151                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

PM Peak







Z:\Shared\W\12720 - Dollar General Caledonia\Analysis\2. 2021 Build\2021 Build.syn

Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

| Intersection              |      |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|------|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 15.3 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | C    |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR  | WBL                                                                                 | WBT                                                                                 | WBR  | NBL  | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 | SBR  |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h  | 65                                                                                  | 265                                                                                 | 125  | 5                                                                                   | 265                                                                                 | 30   | 85   | 50                                                                                  | 5    | 30   | 50                                                                                  | 65   |
| Future Vol, veh/h   | 65                                                                                  | 265                                                                                 | 125  | 5                                                                                   | 265                                                                                 | 30   | 85   | 50                                                                                  | 5    | 30   | 50                                                                                  | 65   |
| 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 |
| Heavy Vehicles, %   | 3                                                                                   | 3                                                                                   | 3    | 3                                                                                   | 3                                                                                   | 3    | 5    | 5                                                                                   | 5    | 6    | 6                                                                                   | 6    |
| Mvmt Flow           | 68                                                                                  | 276                                                                                 | 130  | 5                                                                                   | 276                                                                                 | 31   | 89   | 52                                                                                  | 5    | 31   | 52                                                                                  | 68   |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB | SB   |
|----------------------------|------|------|----|------|
| Opposing Approach          | WB   | EB   | SB | NB   |
| Opposing Lanes             | 2    | 2    | 1  | 1    |
| Conflicting Approach Left  | SB   | NB   | EB | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2  | 2    |
| Conflicting Approach Right | NB   | SB   | WB | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2  | 2    |
| HCM Control Delay          | 17.5 | 15.3 | 12 | 11.6 |
| HCM LOS                    | C    | C    | B  | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 61%   | 100%  | 0%    | 100%  | 0%    | 21%   |
| Vol Thru, %            | 36%   | 0%    | 68%   | 0%    | 90%   | 34%   |
| Vol Right, %           | 4%    | 0%    | 32%   | 0%    | 10%   | 45%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 140   | 65    | 390   | 5     | 295   | 145   |
| LT Vol                 | 85    | 65    | 0     | 5     | 0     | 30    |
| Through Vol            | 50    | 0     | 265   | 0     | 265   | 50    |
| RT Vol                 | 5     | 0     | 125   | 0     | 30    | 65    |
| Lane Flow Rate         | 146   | 68    | 406   | 5     | 307   | 151   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.266 | 0.122 | 0.65  | 0.01  | 0.522 | 0.262 |
| Departure Headway (Hd) | 6.561 | 6.492 | 5.757 | 6.695 | 6.114 | 6.251 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 544   | 550   | 626   | 532   | 587   | 569   |
| Service Time           | 4.653 | 4.255 | 3.519 | 4.465 | 3.884 | 4.343 |
| HCM Lane V/C Ratio     | 0.268 | 0.124 | 0.649 | 0.009 | 0.523 | 0.265 |
| HCM Control Delay      | 12    | 10.2  | 18.7  | 9.5   | 15.4  | 11.6  |
| HCM Lane LOS           | B     | B     | C     | A     | C     | B     |
| HCM 95th-tile Q        | 1.1   | 0.4   | 4.7   | 0     | 3     | 1     |

PM Peak

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Synchro 11 Report

Lanes, Volumes, Timings  
110: East Drwy & 4 Mile Road

09/16/2021

|                         | →            | ↖    | ↗    | ←     | ↖    | ↗     |
|-------------------------|--------------|------|------|-------|------|-------|
| Lane Group              | EBT          | EBR  | WBL  | WBT   | NBL  | NBR   |
| Lane Configurations     | ↖            |      |      | ↗     |      | ↖     |
| Traffic Volume (vph)    | 285          | 15   | 10   | 300   | 0    | 10    |
| Future Volume (vph)     | 285          | 15   | 10   | 300   | 0    | 10    |
| 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    |       | 0    | 1     |
| Taper Length (ft)       |              |      | 50   |       | 50   |       |
| Lane Util. Factor       | 1.00         | 1.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| Ped Bike Factor         |              |      |      |       |      |       |
| Frt                     | 0.993        |      |      |       |      | 0.865 |
| Flt Protected           |              |      |      | 0.998 |      |       |
| Satd. Flow (prot)       | 1832         | 0    | 0    | 1841  | 0    | 1611  |
| Flt Permitted           |              |      |      | 0.998 |      |       |
| Satd. Flow (perm)       | 1832         | 0    | 0    | 1841  | 0    | 1611  |
| Link Speed (mph)        | 35           |      |      | 35    | 25   |       |
| Link Distance (ft)      | 167          |      |      | 699   | 91   |       |
| Travel Time (s)         | 3.3          |      |      | 13.6  | 2.5  |       |
| Confl. Peds. (#/hr)     |              |      |      |       |      |       |
| Confl. Bikes (#/hr)     |              |      |      |       |      |       |
| Peak Hour Factor        | 0.96         | 0.96 | 0.96 | 0.96  | 0.96 | 0.96  |
| Growth Factor           | 100%         | 100% | 100% | 100%  | 100% | 100%  |
| Heavy Vehicles (%)      | 3%           | 3%   | 3%   | 3%    | 2%   | 2%    |
| Bus Blockages (#/hr)    | 0            | 0    | 0    | 0     | 0    | 0     |
| Parking (#/hr)          |              |      |      |       |      |       |
| Mid-Block Traffic (%)   | 0%           |      |      | 0%    | 0%   |       |
| Adj. Flow (vph)         | 297          | 16   | 10   | 313   | 0    | 10    |
| Shared Lane Traffic (%) |              |      |      |       |      |       |
| Lane Group Flow (vph)   | 313          | 0    | 0    | 323   | 0    | 10    |
| Sign Control            | Free         |      |      | Free  | Stop |       |
| Intersection Summary    |              |      |      |       |      |       |
| Area Type:              | Other        |      |      |       |      |       |
| Control Type:           | Unsignalized |      |      |       |      |       |

HCM 6th TWSC  
110: East Drwy & 4 Mile Road

09/16/2021

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↰    |      |      | ↱    |      | ↱    |
| Traffic Vol, veh/h       | 285  | 15   | 10   | 300  | 0    | 10   |
| Future Vol, veh/h        | 285  | 15   | 10   | 300  | 0    | 10   |
| 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         | 96   | 96   | 96   | 96   | 96   | 96   |
| Heavy Vehicles, %        | 3    | 3    | 3    | 3    | 2    | 2    |
| Mvmt Flow                | 297  | 16   | 10   | 313  | 0    | 10   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |   |       |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0      | 0      | 313    | 0 | - | 305   |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
| Critical Hdwy        | -      | -      | 4.13   | - | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - | -     |
| Follow-up Hdwy       | -      | -      | 2.227  | - | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1242   | - | 0 | 735   |
| Stage 1              | -      | -      | -      | - | 0 | -     |
| Stage 2              | -      | -      | -      | - | 0 | -     |
| Platoon blocked, %   | -      | -      | -      | - | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | 1242   | - | - | 735   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - | -     |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
|                      |        |        |        |   |   |       |











| Approach             | EB | WB  | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0  | 0.3 | 10 |
| HCM LOS              | B  |     |    |
|                      |    |     |    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 735   | -   | -   | 1242  | -   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | 0.008 | -   |
| HCM Control Delay (s) | 10    | -   | -   | 7.9   | 0   |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |







Lanes, Volumes, Timings  
120: Erie Street & South Drwy

09/16/2021

|                         |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations     |  |  |  |                                                                                   |                                                                                   |  |
| Traffic Volume (vph)    | 10                                                                                | 15                                                                                | 125                                                                               | 10                                                                                | 5                                                                                 | 175                                                                               |
| Future Volume (vph)     | 10                                                                                | 15                                                                                | 125                                                                               | 10                                                                                | 5                                                                                 | 175                                                                               |
| 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           | 1                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.850                                                                             | 0.990                                                                             |                                                                                   |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.999                                                                             |
| Satd. Flow (prot)       | 1770                                                                              | 1583                                                                              | 1791                                                                              | 0                                                                                 | 0                                                                                 | 1791                                                                              |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.999                                                                             |
| Satd. Flow (perm)       | 1770                                                                              | 1583                                                                              | 1791                                                                              | 0                                                                                 | 0                                                                                 | 1791                                                                              |
| Link Speed (mph)        | 25                                                                                |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |
| Link Distance (ft)      | 116                                                                               |                                                                                   | 460                                                                               |                                                                                   |                                                                                   | 241                                                                               |
| Travel Time (s)         | 3.2                                                                               |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 5.5                                                                               |
| Confl. Peds. (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Confl. Bikes (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Peak Hour Factor        | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              |
| Growth Factor           | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              |
| Heavy Vehicles (%)      | 2%                                                                                | 2%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Adj. Flow (vph)         | 10                                                                                | 16                                                                                | 130                                                                               | 10                                                                                | 5                                                                                 | 182                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 10                                                                                | 16                                                                                | 140                                                                               | 0                                                                                 | 0                                                                                 | 187                                                                               |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
120: Erie Street & South Drwy

09/16/2021

| Intersection             |                                                                                     |                                                                                     |                                                                                     |      |      |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                                 |                                                                                     |                                                                                     |      |      |                                                                                     |
| Movement                 | WBL                                                                                 | WBR                                                                                 | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 |
| Lane Configurations      |  |  |  |      |      |  |
| Traffic Vol, veh/h       | 10                                                                                  | 15                                                                                  | 125                                                                                 | 10   | 5    | 175                                                                                 |
| Future Vol, veh/h        | 10                                                                                  | 15                                                                                  | 125                                                                                 | 10   | 5    | 175                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0    | 0    | 0                                                                                   |
| Sign Control             | Stop                                                                                | Stop                                                                                | Free                                                                                | Free | Free | Free                                                                                |
| RT Channelized           | -                                                                                   | None                                                                                | -                                                                                   | None | -    | None                                                                                |
| Storage Length           | 0                                                                                   | 0                                                                                   | -                                                                                   | -    | -    | -                                                                                   |
| Veh in Median Storage, # | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Grade, %                 | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Peak Hour Factor         | 96                                                                                  | 96                                                                                  | 96                                                                                  | 96   | 96   | 96                                                                                  |
| Heavy Vehicles, %        | 2                                                                                   | 2                                                                                   | 5                                                                                   | 5    | 6    | 6                                                                                   |
| Mvmt Flow                | 10                                                                                  | 16                                                                                  | 130                                                                                 | 10   | 5    | 182                                                                                 |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 327    | 135    | 0      | 0 | 140   |
| Stage 1              | 135    | -      | -      | - | -     |
| Stage 2              | 192    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.16  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.254 |
| Pot Cap-1 Maneuver   | 667    | 914    | -      | - | 1419  |
| Stage 1              | 891    | -      | -      | - | -     |
| Stage 2              | 841    | -      | -      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | 664    | 914    | -      | - | 1419  |
| Mov Cap-2 Maneuver   | 664    | -      | -      | - | -     |
| Stage 1              | 891    | -      | -      | - | -     |
| Stage 2              | 838    | -      | -      | - | -     |



















| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.6 | 0  | 0.2 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL   | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h)      | -   | -   | 664   | 914   | 1419  | -   |
| HCM Lane V/C Ratio    | -   | -   | 0.016 | 0.017 | 0.004 | -   |
| HCM Control Delay (s) | -   | -   | 10.5  | 9     | 7.5   | 0   |
| HCM Lane LOS          | -   | -   | B     | A     | A     | A   |
| HCM 95th %tile Q(veh) | -   | -   | 0     | 0.1   | 0     | -   |

## **Year 2041 Build Traffic Analysis Outputs**

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 40                                                                                | 345                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 60                                                                                | 45                                                                                | 15                                                                                | 80                                                                                | 70                                                                                | 65                                                                                |
| Future Volume (vph)     | 40                                                                                | 345                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 60                                                                                | 45                                                                                | 15                                                                                | 80                                                                                | 70                                                                                | 65                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.979                                                                             |                                                                                   |                                                                                   | 0.984                                                                             |                                                                                   |                                                                                   | 0.983                                                                             |                                                                                   |                                                                                   | 0.959                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.976                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1703                                                                              | 1755                                                                              | 0                                                                                 | 1770                                                                              | 1833                                                                              | 0                                                                                 | 0                                                                                 | 1672                                                                              | 0                                                                                 | 0                                                                                 | 1720                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.976                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1703                                                                              | 1755                                                                              | 0                                                                                 | 1770                                                                              | 1833                                                                              | 0                                                                                 | 0                                                                                 | 1672                                                                              | 0                                                                                 | 0                                                                                 | 1720                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |
| 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 (%)      | 6%                                                                                | 6%                                                                                | 6%                                                                                | 2%                                                                                | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 9%                                                                                | 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%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 43                                                                                | 375                                                                               | 60                                                                                | 5                                                                                 | 272                                                                               | 33                                                                                | 65                                                                                | 49                                                                                | 16                                                                                | 87                                                                                | 76                                                                                | 71                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 43                                                                                | 435                                                                               | 0                                                                                 | 5                                                                                 | 305                                                                               | 0                                                                                 | 0                                                                                 | 130                                                                               | 0                                                                                 | 0                                                                                 | 234                                                                               | 0                                                                                 |
| Sign Control            |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized







HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

Intersection

Intersection Delay, s/veh 19.7

Intersection LOS C

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR  | WBL                                                                                 | WBT                                                                                 | WBR  | NBL  | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 | SBR  |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h  | 40                                                                                  | 345                                                                                 | 55   | 5                                                                                   | 250                                                                                 | 30   | 60   | 45                                                                                  | 15   | 80   | 70                                                                                  | 65   |
| Future Vol, veh/h   | 40                                                                                  | 345                                                                                 | 55   | 5                                                                                   | 250                                                                                 | 30   | 60   | 45                                                                                  | 15   | 80   | 70                                                                                  | 65   |
| Peak Hour Factor    | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92                                                                                | 0.92                                                                                | 0.92 | 0.92 | 0.92                                                                                | 0.92 | 0.92 | 0.92                                                                                | 0.92 |
| Heavy Vehicles, %   | 6                                                                                   | 6                                                                                   | 6    | 2                                                                                   | 2                                                                                   | 2    | 9    | 9                                                                                   | 9    | 4    | 4                                                                                   | 4    |
| Mvmt Flow           | 43                                                                                  | 375                                                                                 | 60   | 5                                                                                   | 272                                                                                 | 33   | 65   | 49                                                                                  | 16   | 87   | 76                                                                                  | 71   |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 25.8 | 17.2 | 12.7 | 14.6 |
| HCM LOS                    | D    | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 50%   | 100%  | 0%    | 100%  | 0%    | 37%   |
| Vol Thru, %            | 38%   | 0%    | 86%   | 0%    | 89%   | 33%   |
| Vol Right, %           | 12%   | 0%    | 14%   | 0%    | 11%   | 30%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 120   | 40    | 400   | 5     | 280   | 215   |
| LT Vol                 | 60    | 40    | 0     | 5     | 0     | 80    |
| Through Vol            | 45    | 0     | 345   | 0     | 250   | 70    |
| RT Vol                 | 15    | 0     | 55    | 0     | 30    | 65    |
| Lane Flow Rate         | 130   | 43    | 435   | 5     | 304   | 234   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.258 | 0.085 | 0.772 | 0.011 | 0.556 | 0.429 |
| Departure Headway (Hd) | 7.133 | 7     | 6.391 | 7.16  | 6.572 | 6.602 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 502   | 515   | 570   | 499   | 548   | 545   |
| Service Time           | 5.201 | 4.7   | 4.091 | 4.912 | 4.324 | 4.658 |
| HCM Lane V/C Ratio     | 0.259 | 0.083 | 0.763 | 0.01  | 0.555 | 0.429 |
| HCM Control Delay      | 12.7  | 10.3  | 27.4  | 10    | 17.3  | 14.6  |
| HCM Lane LOS           | B     | B     | D     | A     | C     | B     |
| HCM 95th-ile Q         | 1     | 0.3   | 7.1   | 0     | 3.4   | 2.1   |

Lanes, Volumes, Timings  
110: East Drwy & 4 Mile Road

09/16/2021

|                         | →            | ↖    | ↗    | ←     | ↖    | ↗     |
|-------------------------|--------------|------|------|-------|------|-------|
| Lane Group              | EBT          | EBR  | WBL  | WBT   | NBL  | NBR   |
| Lane Configurations     | ↖            |      |      | ↗     |      | ↖     |
| Traffic Volume (vph)    | 430          | 10   | 5    | 285   | 0    | 5     |
| Future Volume (vph)     | 430          | 10   | 5    | 285   | 0    | 5     |
| 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    |       | 0    | 1     |
| Taper Length (ft)       |              |      | 50   |       | 50   |       |
| Lane Util. Factor       | 1.00         | 1.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| Ped Bike Factor         |              |      |      |       |      |       |
| Frt                     | 0.997        |      |      |       |      | 0.865 |
| Flt Protected           |              |      |      | 0.999 |      |       |
| Satd. Flow (prot)       | 1787         | 0    | 0    | 1861  | 0    | 1611  |
| Flt Permitted           |              |      |      | 0.999 |      |       |
| Satd. Flow (perm)       | 1787         | 0    | 0    | 1861  | 0    | 1611  |
| Link Speed (mph)        | 35           |      |      | 35    | 25   |       |
| Link Distance (ft)      | 167          |      |      | 699   | 91   |       |
| Travel Time (s)         | 3.3          |      |      | 13.6  | 2.5  |       |
| Confl. Peds. (#/hr)     |              |      |      |       |      |       |
| Confl. Bikes (#/hr)     |              |      |      |       |      |       |
| Peak Hour Factor        | 0.92         | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  |
| Growth Factor           | 100%         | 100% | 100% | 100%  | 100% | 100%  |
| Heavy Vehicles (%)      | 6%           | 6%   | 2%   | 2%    | 2%   | 2%    |
| Bus Blockages (#/hr)    | 0            | 0    | 0    | 0     | 0    | 0     |
| Parking (#/hr)          |              |      |      |       |      |       |
| Mid-Block Traffic (%)   | 0%           |      |      | 0%    | 0%   |       |
| Adj. Flow (vph)         | 467          | 11   | 5    | 310   | 0    | 5     |
| Shared Lane Traffic (%) |              |      |      |       |      |       |
| Lane Group Flow (vph)   | 478          | 0    | 0    | 315   | 0    | 5     |
| Sign Control            | Free         |      |      | Free  | Stop |       |
| Intersection Summary    |              |      |      |       |      |       |
| Area Type:              | Other        |      |      |       |      |       |
| Control Type:           | Unsignalized |      |      |       |      |       |

HCM 6th TWSC  
110: East Drwy & 4 Mile Road

09/16/2021

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↖    |      |      | ↗    |      | ↖    |
| Traffic Vol, veh/h       | 430  | 10   | 5    | 285  | 0    | 5    |
| Future Vol, veh/h        | 430  | 10   | 5    | 285  | 0    | 5    |
| 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         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 6    | 6    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 467  | 11   | 5    | 310  | 0    | 5    |











| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 478    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.12   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.218  |
| Pot Cap-1 Maneuver   | -      | -      | 1084   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1084   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 11.1 |
| HCM LOS              |    |     | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 591   | -   | -   | 1084  | -   |
| HCM Lane V/C Ratio    | 0.009 | -   | -   | 0.005 | -   |
| HCM Control Delay (s) | 11.1  | -   | -   | 8.3   | 0   |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |





Lanes, Volumes, Timings  
120: Erie Street & South Drwy

09/16/2021

|                         |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations     |  |  |  |                                                                                   |                                                                                   |  |
| Traffic Volume (vph)    | 5                                                                                 | 5                                                                                 | 115                                                                               | 5                                                                                 | 1                                                                                 | 130                                                                               |
| Future Volume (vph)     | 5                                                                                 | 5                                                                                 | 115                                                                               | 5                                                                                 | 1                                                                                 | 130                                                                               |
| 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           | 1                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.850                                                                             | 0.995                                                                             |                                                                                   |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Satd. Flow (prot)       | 1770                                                                              | 1583                                                                              | 1734                                                                              | 0                                                                                 | 0                                                                                 | 1827                                                                              |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Satd. Flow (perm)       | 1770                                                                              | 1583                                                                              | 1734                                                                              | 0                                                                                 | 0                                                                                 | 1827                                                                              |
| Link Speed (mph)        | 25                                                                                |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |
| Link Distance (ft)      | 116                                                                               |                                                                                   | 460                                                                               |                                                                                   |                                                                                   | 241                                                                               |
| Travel Time (s)         | 3.2                                                                               |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 5.5                                                                               |
| Confl. Peds. (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Confl. Bikes (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Growth Factor           | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              |
| Heavy Vehicles (%)      | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 4%                                                                                | 4%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Adj. Flow (vph)         | 5                                                                                 | 5                                                                                 | 125                                                                               | 5                                                                                 | 1                                                                                 | 141                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 5                                                                                 | 5                                                                                 | 130                                                                               | 0                                                                                 | 0                                                                                 | 142                                                                               |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



















HCM 6th TWSC  
120: Erie Street & South Drwy

09/16/2021

| Intersection             |                                                                                     |                                                                                     |                                                                                     |       |       |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                                 |                                                                                     |                                                                                     |       |       |                                                                                     |
| Movement                 | WBL                                                                                 | WBR                                                                                 | NBT                                                                                 | NBR   | SBL   | SBT                                                                                 |
| Lane Configurations      |  |  |  |       |       |  |
| Traffic Vol, veh/h       | 5                                                                                   | 5                                                                                   | 115                                                                                 | 5     | 1     | 130                                                                                 |
| Future Vol, veh/h        | 5                                                                                   | 5                                                                                   | 115                                                                                 | 5     | 1     | 130                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0     | 0     | 0                                                                                   |
| Sign Control             | Stop                                                                                | Stop                                                                                | Free                                                                                | Free  | Free  | Free                                                                                |
| RT Channelized           | -                                                                                   | None                                                                                | -                                                                                   | None  | -     | None                                                                                |
| Storage Length           | 0                                                                                   | 0                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Veh in Median Storage, # | 0                                                                                   | -                                                                                   | 0                                                                                   | -     | -     | 0                                                                                   |
| Grade, %                 | 0                                                                                   | -                                                                                   | 0                                                                                   | -     | -     | 0                                                                                   |
| Peak Hour Factor         | 92                                                                                  | 92                                                                                  | 92                                                                                  | 92    | 92    | 92                                                                                  |
| Heavy Vehicles, %        | 2                                                                                   | 2                                                                                   | 9                                                                                   | 9     | 4     | 4                                                                                   |
| Mvmt Flow                | 5                                                                                   | 5                                                                                   | 125                                                                                 | 5     | 1     | 141                                                                                 |
| Major/Minor              |                                                                                     |                                                                                     |                                                                                     |       |       |                                                                                     |
|                          | Minor1                                                                              | Major1                                                                              | Major2                                                                              |       |       |                                                                                     |
| Conflicting Flow All     | 271                                                                                 | 128                                                                                 | 0                                                                                   | 0     | 130   | 0                                                                                   |
| Stage 1                  | 128                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Stage 2                  | 143                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Critical Hdwy            | 6.42                                                                                | 6.22                                                                                | -                                                                                   | -     | 4.14  | -                                                                                   |
| Critical Hdwy Stg 1      | 5.42                                                                                | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Critical Hdwy Stg 2      | 5.42                                                                                | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Follow-up Hdwy           | 3.518                                                                               | 3.318                                                                               | -                                                                                   | -     | 2.236 | -                                                                                   |
| Pot Cap-1 Maneuver       | 718                                                                                 | 922                                                                                 | -                                                                                   | -     | 1443  | -                                                                                   |
| Stage 1                  | 898                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Stage 2                  | 884                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Platoon blocked, %       | -                                                                                   | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Mov Cap-1 Maneuver       | 717                                                                                 | 922                                                                                 | -                                                                                   | -     | 1443  | -                                                                                   |
| Mov Cap-2 Maneuver       | 717                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Stage 1                  | 898                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Stage 2                  | 883                                                                                 | -                                                                                   | -                                                                                   | -     | -     | -                                                                                   |
| Approach                 |                                                                                     |                                                                                     |                                                                                     |       |       |                                                                                     |
|                          | WB                                                                                  | NB                                                                                  | SB                                                                                  |       |       |                                                                                     |
| HCM Control Delay, s     | 9.5                                                                                 | 0                                                                                   | 0.1                                                                                 |       |       |                                                                                     |
| HCM LOS                  | A                                                                                   |                                                                                     |                                                                                     |       |       |                                                                                     |
| Minor Lane/Major Mvmt    |                                                                                     |                                                                                     |                                                                                     |       |       |                                                                                     |
|                          | NBT                                                                                 | NBR                                                                                 | WBLn1                                                                               | WBLn2 | SBL   | SBT                                                                                 |
| Capacity (veh/h)         | -                                                                                   | -                                                                                   | 717                                                                                 | 922   | 1443  | -                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                   | -                                                                                   | 0.008                                                                               | 0.006 | 0.001 | -                                                                                   |
| HCM Control Delay (s)    | -                                                                                   | -                                                                                   | 10.1                                                                                | 8.9   | 7.5   | 0                                                                                   |
| HCM Lane LOS             | -                                                                                   | -                                                                                   | B                                                                                   | A     | A     | A                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                   | -                                                                                   | 0                                                                                   | 0     | 0     | -                                                                                   |

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/16/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |                                                                                   |  |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 60                                                                                | 290                                                                               | 135                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 95                                                                                | 75                                                                                | 5                                                                                 | 50                                                                                | 65                                                                                | 55                                                                                |
| Future Volume (vph)     | 60                                                                                | 290                                                                               | 135                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 95                                                                                | 75                                                                                | 5                                                                                 | 50                                                                                | 65                                                                                | 55                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     | 0.952                                                                             |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.996                                                                             |                                                                                   |                                                                                   | 0.957                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1691                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1752                                                                              | 1756                                                                              | 0                                                                                 | 1752                                                                              | 1797                                                                              | 0                                                                                 | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1691                                                                              | 0                                                                                 |
| Link Speed (mph)        | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   |
| Link Distance (ft)      | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |                                                                                   |
| Travel Time (s)         | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   |
| 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 (%)      | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 5%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   |
| Adj. Flow (vph)         | 63                                                                                | 302                                                                               | 141                                                                               | 5                                                                                 | 302                                                                               | 63                                                                                | 99                                                                                | 78                                                                                | 5                                                                                 | 52                                                                                | 68                                                                                | 57                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 63                                                                                | 443                                                                               | 0                                                                                 | 5                                                                                 | 365                                                                               | 0                                                                                 | 0                                                                                 | 182                                                                               | 0                                                                                 | 0                                                                                 | 177                                                                               | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/16/2021

| Intersection              |      |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|------|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 21.2 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | C    |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖    | ↖    |      | ↖    | ↖    |      |      | ↖    |      |      | ↖    | ↖    |
| Traffic Vol, veh/h  | 60   | 290  | 135  | 5    | 290  | 60   | 95   | 75   | 5    | 50   | 65   | 55   |
| Future Vol, veh/h   | 60   | 290  | 135  | 5    | 290  | 60   | 95   | 75   | 5    | 50   | 65   | 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 |
| Heavy Vehicles, %   | 3    | 3    | 3    | 3    | 3    | 3    | 5    | 5    | 5    | 6    | 6    | 6    |
| Mvmt Flow           | 63   | 302  | 141  | 5    | 302  | 63   | 99   | 78   | 5    | 52   | 68   | 57   |
| Number of Lanes     | 1    | 1    | 0    | 1    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 2    | 2    |
| HCM Control Delay          | 25.9 | 21.7 | 14.4 | 13.8 |
| HCM LOS                    | D    | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 54%   | 100%  | 0%    | 100%  | 0%    | 29%   |
| Vol Thru, %            | 43%   | 0%    | 68%   | 0%    | 83%   | 38%   |
| Vol Right, %           | 3%    | 0%    | 32%   | 0%    | 17%   | 32%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 175   | 60    | 425   | 5     | 350   | 170   |
| LT Vol                 | 95    | 60    | 0     | 5     | 0     | 50    |
| Through Vol            | 75    | 0     | 290   | 0     | 290   | 65    |
| RT Vol                 | 5     | 0     | 135   | 0     | 60    | 55    |
| Lane Flow Rate         | 182   | 62    | 443   | 5     | 365   | 177   |
| Geometry Grp           | 2     | 7     | 7     | 7     | 7     | 2     |
| Degree of Util (X)     | 0.365 | 0.123 | 0.779 | 0.011 | 0.671 | 0.346 |
| Departure Headway (Hd) | 7.214 | 7.069 | 6.331 | 7.261 | 6.626 | 7.037 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 498   | 506   | 571   | 492   | 543   | 510   |
| Service Time           | 5.282 | 4.821 | 4.082 | 5.016 | 4.381 | 5.105 |
| HCM Lane V/C Ratio     | 0.365 | 0.123 | 0.776 | 0.01  | 0.672 | 0.347 |
| HCM Control Delay      | 14.4  | 10.8  | 28    | 10.1  | 21.9  | 13.8  |
| HCM Lane LOS           | B     | B     | D     | B     | C     | B     |
| HCM 95th-ile Q         | 1.7   | 0.4   | 7.2   | 0     | 5     | 1.5   |

Lanes, Volumes, Timings  
110: East Drwy & 4 Mile Road

09/16/2021

|                         | →     | ↖    | ↗    | ←     | ↖    | ↗     |
|-------------------------|-------|------|------|-------|------|-------|
| Lane Group              | EBT   | EBR  | WBL  | WBT   | NBL  | NBR   |
| Lane Configurations     | ↖     |      |      | ↖     |      | ↖     |
| Traffic Volume (vph)    | 330   | 15   | 10   | 355   | 0    | 10    |
| Future Volume (vph)     | 330   | 15   | 10   | 355   | 0    | 10    |
| 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    |       | 0    | 1     |
| Taper Length (ft)       |       |      | 50   |       | 50   |       |
| Lane Util. Factor       | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00  |
| Ped Bike Factor         |       |      |      |       |      |       |
| Frt                     | 0.994 |      |      |       |      | 0.865 |
| Flt Protected           |       |      |      | 0.999 |      |       |
| Satd. Flow (prot)       | 1834  | 0    | 0    | 1843  | 0    | 1611  |
| Flt Permitted           |       |      |      | 0.999 |      |       |
| Satd. Flow (perm)       | 1834  | 0    | 0    | 1843  | 0    | 1611  |
| Link Speed (mph)        | 35    |      |      | 35    | 25   |       |
| Link Distance (ft)      | 167   |      |      | 699   | 91   |       |
| Travel Time (s)         | 3.3   |      |      | 13.6  | 2.5  |       |
| Confl. Peds. (#/hr)     |       |      |      |       |      |       |
| Confl. Bikes (#/hr)     |       |      |      |       |      |       |
| Peak Hour Factor        | 0.96  | 0.96 | 0.96 | 0.96  | 0.96 | 0.96  |
| Growth Factor           | 100%  | 100% | 100% | 100%  | 100% | 100%  |
| Heavy Vehicles (%)      | 3%    | 3%   | 3%   | 3%    | 2%   | 2%    |
| Bus Blockages (#/hr)    | 0     | 0    | 0    | 0     | 0    | 0     |
| Parking (#/hr)          |       |      |      |       |      |       |
| Mid-Block Traffic (%)   | 0%    |      |      | 0%    | 0%   |       |
| Adj. Flow (vph)         | 344   | 16   | 10   | 370   | 0    | 10    |
| Shared Lane Traffic (%) |       |      |      |       |      |       |
| Lane Group Flow (vph)   | 360   | 0    | 0    | 380   | 0    | 10    |
| Sign Control            | Free  |      |      | Free  | Stop |       |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

HCM 6th TWSC  
110: East Drwy & 4 Mile Road

09/16/2021

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↖    |      |      | ↖    |      | ↖    |
| Traffic Vol, veh/h       | 330  | 15   | 10   | 355  | 0    | 10   |
| Future Vol, veh/h        | 330  | 15   | 10   | 355  | 0    | 10   |
| 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         | 96   | 96   | 96   | 96   | 96   | 96   |
| Heavy Vehicles, %        | 3    | 3    | 3    | 3    | 2    | 2    |
| Mvmt Flow                | 344  | 16   | 10   | 370  | 0    | 10   |

| Major/Minor          | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 360    |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | -      | 4.13   |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | -      | 2.227  |
| Pot Cap-1 Maneuver   | -      | -      | 1193   |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1193   |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |











| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 10.3 |
| HCM LOS              |    |     | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 692   | -   | -   | 1193  | -   |
| HCM Lane V/C Ratio    | 0.015 | -   | -   | 0.009 | -   |
| HCM Control Delay (s) | 10.3  | -   | -   | 8     | 0   |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |







Lanes, Volumes, Timings  
120: Erie Street & South Drwy

09/16/2021

|                         |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations     |  |  |  |                                                                                   |                                                                                   |  |
| Traffic Volume (vph)    | 10                                                                                | 15                                                                                | 160                                                                               | 10                                                                                | 5                                                                                 | 200                                                                               |
| Future Volume (vph)     | 10                                                                                | 15                                                                                | 160                                                                               | 10                                                                                | 5                                                                                 | 200                                                                               |
| 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           | 1                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   | 0.850                                                                             | 0.992                                                                             |                                                                                   |                                                                                   |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.999                                                                             |
| Satd. Flow (prot)       | 1770                                                                              | 1583                                                                              | 1795                                                                              | 0                                                                                 | 0                                                                                 | 1791                                                                              |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.999                                                                             |
| Satd. Flow (perm)       | 1770                                                                              | 1583                                                                              | 1795                                                                              | 0                                                                                 | 0                                                                                 | 1791                                                                              |
| Link Speed (mph)        | 25                                                                                |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |
| Link Distance (ft)      | 116                                                                               |                                                                                   | 460                                                                               |                                                                                   |                                                                                   | 241                                                                               |
| Travel Time (s)         | 3.2                                                                               |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 5.5                                                                               |
| Confl. Peds. (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Confl. Bikes (#/hr)     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Peak Hour Factor        | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              |
| Growth Factor           | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              | 100%                                                                              |
| Heavy Vehicles (%)      | 2%                                                                                | 2%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Adj. Flow (vph)         | 10                                                                                | 16                                                                                | 167                                                                               | 10                                                                                | 5                                                                                 | 208                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 10                                                                                | 16                                                                                | 177                                                                               | 0                                                                                 | 0                                                                                 | 213                                                                               |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
120: Erie Street & South Drwy

09/16/2021

| Intersection             |                                                                                     |                                                                                     |                                                                                     |      |      |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7                                                                                 |                                                                                     |                                                                                     |      |      |                                                                                     |
| Movement                 | WBL                                                                                 | WBR                                                                                 | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 |
| Lane Configurations      |  |  |  |      |      |  |
| Traffic Vol, veh/h       | 10                                                                                  | 15                                                                                  | 160                                                                                 | 10   | 5    | 200                                                                                 |
| Future Vol, veh/h        | 10                                                                                  | 15                                                                                  | 160                                                                                 | 10   | 5    | 200                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0    | 0    | 0                                                                                   |
| Sign Control             | Stop                                                                                | Stop                                                                                | Free                                                                                | Free | Free | Free                                                                                |
| RT Channelized           | -                                                                                   | None                                                                                | -                                                                                   | None | -    | None                                                                                |
| Storage Length           | 0                                                                                   | 0                                                                                   | -                                                                                   | -    | -    | -                                                                                   |
| Veh in Median Storage, # | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Grade, %                 | 0                                                                                   | -                                                                                   | 0                                                                                   | -    | -    | 0                                                                                   |
| Peak Hour Factor         | 96                                                                                  | 96                                                                                  | 96                                                                                  | 96   | 96   | 96                                                                                  |
| Heavy Vehicles, %        | 2                                                                                   | 2                                                                                   | 5                                                                                   | 5    | 6    | 6                                                                                   |
| Mvmt Flow                | 10                                                                                  | 16                                                                                  | 167                                                                                 | 10   | 5    | 208                                                                                 |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 390    | 172    | 0      |
| Stage 1              | 172    | -      | -      |
| Stage 2              | 218    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 614    | 872    | -      |
| Stage 1              | 858    | -      | -      |
| Stage 2              | 818    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 612    | 872    | -      |
| Mov Cap-2 Maneuver   | 612    | -      | -      |
| Stage 1              | 858    | -      | -      |
| Stage 2              | 815    | -      | -      |





















| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.9 | 0  | 0.2 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL   | SBT |
|-----------------------|-----|-----|-------|-------|-------|-----|
| Capacity (veh/h)      | -   | -   | 612   | 872   | 1375  | -   |
| HCM Lane V/C Ratio    | -   | -   | 0.017 | 0.018 | 0.004 | -   |
| HCM Control Delay (s) | -   | -   | 11    | 9.2   | 7.6   | 0   |
| HCM Lane LOS          | -   | -   | B     | A     | A     | A   |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.1   | 0     | -   |

**Year 2041 Background Traffic  
Analysis Outputs**  
*(With 4 Mile Road & Erie Street  
Optional EB/WB Right-Turn Lanes)*

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/17/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |  |  |  |  |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 40                                                                                | 340                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 55                                                                                | 45                                                                                | 15                                                                                | 75                                                                                | 70                                                                                | 65                                                                                |
| Future Volume (vph)     | 40                                                                                | 340                                                                               | 55                                                                                | 5                                                                                 | 250                                                                               | 30                                                                                | 55                                                                                | 45                                                                                | 15                                                                                | 75                                                                                | 70                                                                                | 65                                                                                |
| 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)     | 95                                                                                |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.983                                                                             |                                                                                   |                                                                                   | 0.958                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.977                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1703                                                                              | 1792                                                                              | 1524                                                                              | 1770                                                                              | 1863                                                                              | 1583                                                                              | 0                                                                                 | 1674                                                                              | 0                                                                                 | 0                                                                                 | 1719                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.977                                                                             |                                                                                   |                                                                                   | 0.982                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1703                                                                              | 1792                                                                              | 1524                                                                              | 1770                                                                              | 1863                                                                              | 1583                                                                              | 0                                                                                 | 1674                                                                              | 0                                                                                 | 0                                                                                 | 1719                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |
| 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 (%)      | 6%                                                                                | 6%                                                                                | 6%                                                                                | 2%                                                                                | 2%                                                                                | 2%                                                                                | 9%                                                                                | 9%                                                                                | 9%                                                                                | 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%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 43                                                                                | 370                                                                               | 60                                                                                | 5                                                                                 | 272                                                                               | 33                                                                                | 60                                                                                | 49                                                                                | 16                                                                                | 82                                                                                | 76                                                                                | 71                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 43                                                                                | 370                                                                               | 60                                                                                | 5                                                                                 | 272                                                                               | 33                                                                                | 0                                                                                 | 125                                                                               | 0                                                                                 | 0                                                                                 | 229                                                                               | 0                                                                                 |
| Sign Control            |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

AM Peak

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Synchro 11 Report













HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/17/2021

Intersection

Intersection Delay, s/veh 16.7

Intersection LOS C

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | WBL                                                                                 | WBT                                                                                 | WBR                                                                                 | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Vol, veh/h  | 40                                                                                  | 340                                                                                 | 55                                                                                  | 5                                                                                   | 250                                                                                 | 30                                                                                  | 55                                                                                  | 45                                                                                  | 15                                                                                  | 75                                                                                  | 70                                                                                  | 65                                                                                  |
| Future Vol, veh/h   | 40                                                                                  | 340                                                                                 | 55                                                                                  | 5                                                                                   | 250                                                                                 | 30                                                                                  | 55                                                                                  | 45                                                                                  | 15                                                                                  | 75                                                                                  | 70                                                                                  | 65                                                                                  |
| Peak Hour Factor    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Heavy Vehicles, %   | 6                                                                                   | 6                                                                                   | 6                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   | 4                                                                                   | 4                                                                                   | 4                                                                                   |
| Mvmt Flow           | 43                                                                                  | 370                                                                                 | 60                                                                                  | 5                                                                                   | 272                                                                                 | 33                                                                                  | 60                                                                                  | 49                                                                                  | 16                                                                                  | 82                                                                                  | 76                                                                                  | 71                                                                                  |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 0                                                                                   | 1                                                                                   | 0                                                                                   | 0                                                                                   | 1                                                                                   | 0                                                                                   |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 3    | 3    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 3    | 3    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 3    | 3    |
| HCM Control Delay          | 19.1 | 15.3 | 13.1 | 15.4 |
| HCM LOS                    | C    | C    | B    | C    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | WBLn3 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 48%   | 100%  | 0%    | 0%    | 100%  | 0%    | 0%    | 36%   |
| Vol Thru, %            | 39%   | 0%    | 100%  | 0%    | 0%    | 100%  | 0%    | 33%   |
| Vol Right, %           | 13%   | 0%    | 0%    | 100%  | 0%    | 0%    | 100%  | 31%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 115   | 40    | 340   | 55    | 5     | 250   | 30    | 210   |
| LT Vol                 | 55    | 40    | 0     | 0     | 5     | 0     | 0     | 75    |
| Through Vol            | 45    | 0     | 340   | 0     | 0     | 250   | 0     | 70    |
| RT Vol                 | 15    | 0     | 0     | 55    | 0     | 0     | 30    | 65    |
| Lane Flow Rate         | 125   | 43    | 370   | 60    | 5     | 272   | 33    | 228   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.264 | 0.085 | 0.673 | 0.097 | 0.011 | 0.506 | 0.054 | 0.448 |
| Departure Headway (Hd) | 7.613 | 7.067 | 6.555 | 5.838 | 7.219 | 6.705 | 5.987 | 7.059 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 471   | 510   | 554   | 618   | 496   | 538   | 598   | 511   |
| Service Time           | 5.363 | 4.767 | 4.255 | 3.538 | 4.959 | 4.446 | 3.727 | 4.801 |
| HCM Lane V/C Ratio     | 0.265 | 0.084 | 0.668 | 0.097 | 0.01  | 0.506 | 0.055 | 0.446 |
| HCM Control Delay      | 13.1  | 10.4  | 21.7  | 9.2   | 10    | 16.2  | 9.1   | 15.4  |
| HCM Lane LOS           | B     | B     | C     | A     | A     | C     | A     | C     |
| HCM 95th-ile Q         | 1.1   | 0.3   | 5     | 0.3   | 0     | 2.8   | 0.2   | 2.3   |

AM Peak

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Synchro 11 Report

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/17/2021

|                         | EBL   | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL   | SBT   | SBR  |
|-------------------------|-------|-------|------|-------|------|-------|------|-------|------|-------|-------|------|
| Lane Configurations     |       |       |      |       |      |       |      |       |      |       |       |      |
| Traffic Volume (vph)    | 60    | 280   | 130  | 5     | 290  | 60    | 85   | 70    | 5    | 45    | 65    | 55   |
| Future Volume (vph)     | 60    | 280   | 130  | 5     | 290  | 60    | 85   | 70    | 5    | 45    | 65    | 55   |
| 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)     | 95    |       | 0    | 100   |      | 0     | 0    |       | 0    | 0     |       | 0    |
| Storage Lanes           | 1     |       | 1    | 1     |      | 1     | 0    |       | 0    | 0     |       | 0    |
| Taper Length (ft)       | 50    |       |      | 50    |      |       | 50   |       |      | 50    |       |      |
| Lane Util. Factor       | 1.00  | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00  | 1.00 |
| Ped Bike Factor         |       |       |      |       |      |       |      |       |      |       |       |      |
| Frt                     |       | 0.850 |      |       |      | 0.850 |      |       |      | 0.955 |       |      |
| Flt Protected           | 0.950 |       |      | 0.950 |      |       |      | 0.974 |      |       | 0.987 |      |
| Satd. Flow (prot)       | 1752  | 1845  | 1568 | 1752  | 1845 | 1568  | 0    | 1755  | 0    | 0     | 1690  | 0    |
| Flt Permitted           | 0.950 |       |      | 0.950 |      |       |      | 0.974 |      |       | 0.987 |      |
| Satd. Flow (perm)       | 1752  | 1845  | 1568 | 1752  | 1845 | 1568  | 0    | 1755  | 0    | 0     | 1690  | 0    |
| Link Speed (mph)        |       | 35    |      |       | 35   |       |      | 30    |      |       | 30    |      |
| Link Distance (ft)      |       | 726   |      |       | 167  |       |      | 241   |      |       | 618   |      |
| Travel Time (s)         |       | 14.1  |      |       | 3.3  |       |      | 5.5   |      |       | 14.0  |      |
| 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 (%)      | 3%    | 3%    | 3%   | 3%    | 3%   | 3%    | 5%   | 5%    | 5%   | 6%    | 6%    | 6%   |
| Bus Blockages (#/hr)    | 0     | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0     | 0    |
| Parking (#/hr)          |       |       |      |       |      |       |      |       |      |       |       |      |
| Mid-Block Traffic (%)   |       | 0%    |      |       | 0%   |       |      | 0%    |      |       | 0%    |      |
| Adj. Flow (vph)         | 63    | 292   | 135  | 5     | 302  | 63    | 89   | 73    | 5    | 47    | 68    | 57   |
| Shared Lane Traffic (%) |       |       |      |       |      |       |      |       |      |       |       |      |
| Lane Group Flow (vph)   | 63    | 292   | 135  | 5     | 302  | 63    | 0    | 167   | 0    | 0     | 172   | 0    |
| Sign Control            | Stop  |       |      | Stop  |      |       | Stop |       |      | Stop  |       |      |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

PM Peak

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Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/17/2021

Intersection

Intersection Delay, s/veh 14.7

Intersection LOS B

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h  | 60   | 280  | 130  | 5    | 290  | 60   | 85   | 70   | 5    | 45   | 65   | 55   |
| Future Vol, veh/h   | 60   | 280  | 130  | 5    | 290  | 60   | 85   | 70   | 5    | 45   | 65   | 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 |
| Heavy Vehicles, %   | 3    | 3    | 3    | 3    | 3    | 3    | 5    | 5    | 5    | 6    | 6    | 6    |
| Mvmt Flow           | 63   | 292  | 135  | 5    | 302  | 63   | 89   | 73   | 5    | 47   | 68   | 57   |
| Number of Lanes     | 1    | 1    | 1    | 1    | 1    | 1    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB | WB   | NB   | SB   |
|----------------------------|----|------|------|------|
| Opposing Approach          | WB | EB   | SB   | NB   |
| Opposing Lanes             | 3  | 3    | 1    | 1    |
| Conflicting Approach Left  | SB | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1  | 1    | 3    | 3    |
| Conflicting Approach Right | NB | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1  | 1    | 3    | 3    |
| HCM Control Delay          | 14 | 16.2 | 14.3 | 13.8 |
| HCM LOS                    | B  | C    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | WBLn3 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 53%   | 100%  | 0%    | 0%    | 100%  | 0%    | 0%    | 27%   |
| Vol Thru, %            | 44%   | 0%    | 100%  | 0%    | 0%    | 100%  | 0%    | 39%   |
| Vol Right, %           | 3%    | 0%    | 0%    | 100%  | 0%    | 0%    | 100%  | 33%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 160   | 60    | 280   | 130   | 5     | 290   | 60    | 165   |
| LT Vol                 | 85    | 60    | 0     | 0     | 5     | 0     | 0     | 45    |
| Through Vol            | 70    | 0     | 280   | 0     | 0     | 290   | 0     | 65    |
| RT Vol                 | 5     | 0     | 0     | 130   | 0     | 0     | 60    | 55    |
| Lane Flow Rate         | 167   | 62    | 292   | 135   | 5     | 302   | 62    | 172   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.35  | 0.123 | 0.53  | 0.219 | 0.01  | 0.562 | 0.104 | 0.346 |
| Departure Headway (Hd) | 7.557 | 7.059 | 6.547 | 5.83  | 7.207 | 6.694 | 5.977 | 7.237 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 477   | 510   | 554   | 619   | 499   | 541   | 602   | 497   |
| Service Time           | 5.304 | 4.772 | 4.26  | 3.542 | 4.921 | 4.408 | 3.69  | 4.982 |
| HCM Lane V/C Ratio     | 0.35  | 0.122 | 0.527 | 0.218 | 0.01  | 0.558 | 0.103 | 0.346 |
| HCM Control Delay      | 14.3  | 10.8  | 16.4  | 10.2  | 10    | 17.7  | 9.4   | 13.8  |
| HCM Lane LOS           | B     | B     | C     | B     | A     | C     | A     | B     |
| HCM 95th-tile Q        | 1.6   | 0.4   | 3.1   | 0.8   | 0     | 3.4   | 0.3   | 1.5   |

PM Peak

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Synchro 11 Report

**Year 2041 Build Traffic  
Analysis Outputs**  
*(With 4 Mile Road & Erie Street  
Optional EB/WB Right-Turn Lanes)*

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/17/2021

|                         | EBL   | EBT   | EBR  | WBL   | WBT   | WBR  | NBL  | NBT   | NBR  | SBL  | SBT   | SBR  |
|-------------------------|-------|-------|------|-------|-------|------|------|-------|------|------|-------|------|
| Lane Configurations     |       |       |      |       |       |      |      |       |      |      |       |      |
| Traffic Volume (vph)    | 40    | 345   | 55   | 5     | 250   | 30   | 60   | 45    | 15   | 80   | 70    | 65   |
| Future Volume (vph)     | 40    | 345   | 55   | 5     | 250   | 30   | 60   | 45    | 15   | 80   | 70    | 65   |
| 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)     | 95    |       | 100  | 100   |       | 0    | 0    |       | 0    | 0    |       | 0    |
| Storage Lanes           | 1     |       | 1    | 1     |       | 1    | 0    |       | 0    | 0    |       | 0    |
| Taper Length (ft)       | 50    |       |      | 50    |       |      | 50   |       |      | 50   |       |      |
| Lane Util. Factor       | 1.00  | 1.00  | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 |
| Ped Bike Factor         |       |       |      |       |       |      |      |       |      |      |       |      |
| Frt                     |       | 0.850 |      |       | 0.850 |      |      | 0.983 |      |      | 0.959 |      |
| Flt Protected           | 0.950 |       |      | 0.950 |       |      |      | 0.976 |      |      | 0.982 |      |
| Satd. Flow (prot)       | 1703  | 1792  | 1524 | 1770  | 1863  | 1583 | 0    | 1672  | 0    | 0    | 1720  | 0    |
| Flt Permitted           | 0.950 |       |      | 0.950 |       |      |      | 0.976 |      |      | 0.982 |      |
| Satd. Flow (perm)       | 1703  | 1792  | 1524 | 1770  | 1863  | 1583 | 0    | 1672  | 0    | 0    | 1720  | 0    |
| Link Speed (mph)        |       | 35    |      |       | 35    |      |      | 30    |      |      | 30    |      |
| Link Distance (ft)      |       | 726   |      |       | 167   |      |      | 241   |      |      | 618   |      |
| Travel Time (s)         |       | 14.1  |      |       | 3.3   |      |      | 5.5   |      |      | 14.0  |      |
| 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 (%)      | 6%    | 6%    | 6%   | 2%    | 2%    | 2%   | 9%   | 9%    | 9%   | 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%    |      |
| Adj. Flow (vph)         | 43    | 375   | 60   | 5     | 272   | 33   | 65   | 49    | 16   | 87   | 76    | 71   |
| Shared Lane Traffic (%) |       |       |      |       |       |      |      |       |      |      |       |      |
| Lane Group Flow (vph)   | 43    | 375   | 60   | 5     | 272   | 33   | 0    | 130   | 0    | 0    | 234   | 0    |
| Sign Control            | Stop  |       |      | Stop  |       |      | Stop |       |      | Stop |       |      |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

AM Peak

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Synchro 11 Report

HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/17/2021

| Intersection              |      |
|---------------------------|------|
| Intersection Delay, s/veh | 17.2 |
| Intersection LOS          | C    |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h  | 40   | 345  | 55   | 5    | 250  | 30   | 60   | 45   | 15   | 80   | 70   | 65   |
| Future Vol, veh/h   | 40   | 345  | 55   | 5    | 250  | 30   | 60   | 45   | 15   | 80   | 70   | 65   |
| Peak Hour Factor    | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, %   | 6    | 6    | 6    | 2    | 2    | 2    | 9    | 9    | 9    | 4    | 4    | 4    |
| Mvmt Flow           | 43   | 375  | 60   | 5    | 272  | 33   | 65   | 49   | 16   | 87   | 76   | 71   |
| Number of Lanes     | 1    | 1    | 1    | 1    | 1    | 1    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 3    | 3    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 3    | 3    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 3    | 3    |
| HCM Control Delay          | 19.8 | 15.6 | 13.4 | 15.9 |
| HCM LOS                    | C    | C    | B    | C    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | WBLn3 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 50%   | 100%  | 0%    | 0%    | 100%  | 0%    | 0%    | 37%   |
| Vol Thru, %            | 38%   | 0%    | 100%  | 0%    | 0%    | 100%  | 0%    | 33%   |
| Vol Right, %           | 12%   | 0%    | 0%    | 100%  | 0%    | 0%    | 100%  | 30%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 120   | 40    | 345   | 55    | 5     | 250   | 30    | 215   |
| LT Vol                 | 60    | 40    | 0     | 0     | 5     | 0     | 0     | 80    |
| Through Vol            | 45    | 0     | 345   | 0     | 0     | 250   | 0     | 70    |
| RT Vol                 | 15    | 0     | 0     | 55    | 0     | 0     | 30    | 65    |
| Lane Flow Rate         | 130   | 43    | 375   | 60    | 5     | 272   | 33    | 234   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.279 | 0.086 | 0.687 | 0.098 | 0.011 | 0.513 | 0.055 | 0.463 |
| Departure Headway (Hd) | 7.691 | 7.105 | 6.592 | 5.875 | 7.303 | 6.79  | 6.07  | 7.13  |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 467   | 505   | 548   | 610   | 490   | 530   | 590   | 505   |
| Service Time           | 5.439 | 4.842 | 4.329 | 3.611 | 5.044 | 4.531 | 3.811 | 4.872 |
| HCM Lane V/C Ratio     | 0.278 | 0.085 | 0.684 | 0.098 | 0.01  | 0.513 | 0.056 | 0.463 |
| HCM Control Delay      | 13.4  | 10.5  | 22.6  | 9.3   | 10.1  | 16.5  | 9.2   | 15.9  |
| HCM Lane LOS           | B     | B     | C     | A     | B     | C     | A     | C     |
| HCM 95th-ile Q         | 1.1   | 0.3   | 5.3   | 0.3   | 0     | 2.9   | 0.2   | 2.4   |





















AM Peak

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Synchro 11 Report

Lanes, Volumes, Timings  
100: Erie Street & 4 Mile Road

09/17/2021

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |  |  |  |  |  |  |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |
| Traffic Volume (vph)    | 60                                                                                | 290                                                                               | 135                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 95                                                                                | 75                                                                                | 5                                                                                 | 50                                                                                | 65                                                                                | 55                                                                                |
| Future Volume (vph)     | 60                                                                                | 290                                                                               | 135                                                                               | 5                                                                                 | 290                                                                               | 60                                                                                | 95                                                                                | 75                                                                                | 5                                                                                 | 50                                                                                | 65                                                                                | 55                                                                                |
| 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)     | 95                                                                                |                                                                                   | 100                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 |
| Taper Length (ft)       | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                   |
| Lane Util. Factor       | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |
| Ped Bike Factor         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Frt                     |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   | 0.996                                                                             |                                                                                   |                                                                                   | 0.957                                                                             |                                                                                   |
| Flt Protected           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (prot)       | 1752                                                                              | 1845                                                                              | 1568                                                                              | 1752                                                                              | 1845                                                                              | 1568                                                                              | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1691                                                                              | 0                                                                                 |
| Flt Permitted           | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.974                                                                             |                                                                                   |                                                                                   | 0.986                                                                             |                                                                                   |
| Satd. Flow (perm)       | 1752                                                                              | 1845                                                                              | 1568                                                                              | 1752                                                                              | 1845                                                                              | 1568                                                                              | 0                                                                                 | 1755                                                                              | 0                                                                                 | 0                                                                                 | 1691                                                                              | 0                                                                                 |
| Link Speed (mph)        |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 35                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 726                                                                               |                                                                                   |                                                                                   | 167                                                                               |                                                                                   |                                                                                   | 241                                                                               |                                                                                   |                                                                                   | 618                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 14.1                                                                              |                                                                                   |                                                                                   | 3.3                                                                               |                                                                                   |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                   | 14.0                                                                              |                                                                                   |
| 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 (%)      | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 3%                                                                                | 5%                                                                                | 5%                                                                                | 5%                                                                                | 6%                                                                                | 6%                                                                                | 6%                                                                                |
| Bus Blockages (#/hr)    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Parking (#/hr)          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Mid-Block Traffic (%)   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |
| Adj. Flow (vph)         | 63                                                                                | 302                                                                               | 141                                                                               | 5                                                                                 | 302                                                                               | 63                                                                                | 99                                                                                | 78                                                                                | 5                                                                                 | 52                                                                                | 68                                                                                | 57                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 63                                                                                | 302                                                                               | 141                                                                               | 5                                                                                 | 302                                                                               | 63                                                                                | 0                                                                                 | 182                                                                               | 0                                                                                 | 0                                                                                 | 177                                                                               | 0                                                                                 |
| Sign Control            |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |                                                                                   | Stop                                                                              |                                                                                   |

Intersection Summary

Area Type: Other

Control Type: Unsignalized













HCM 6th AWSC  
100: Erie Street & 4 Mile Road

09/17/2021

Intersection

Intersection Delay, s/veh 15.4

Intersection LOS C

| Movement            | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | WBL                                                                                 | WBT                                                                                 | WBR                                                                                 | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Vol, veh/h  | 60                                                                                  | 290                                                                                 | 135                                                                                 | 5                                                                                   | 290                                                                                 | 60                                                                                  | 95                                                                                  | 75                                                                                  | 5                                                                                   | 50                                                                                  | 65                                                                                  | 55                                                                                  |
| Future Vol, veh/h   | 60                                                                                  | 290                                                                                 | 135                                                                                 | 5                                                                                   | 290                                                                                 | 60                                                                                  | 95                                                                                  | 75                                                                                  | 5                                                                                   | 50                                                                                  | 65                                                                                  | 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                                                                                |
| Heavy Vehicles, %   | 3                                                                                   | 3                                                                                   | 3                                                                                   | 3                                                                                   | 3                                                                                   | 3                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Mvmt Flow           | 63                                                                                  | 302                                                                                 | 141                                                                                 | 5                                                                                   | 302                                                                                 | 63                                                                                  | 99                                                                                  | 78                                                                                  | 5                                                                                   | 52                                                                                  | 68                                                                                  | 57                                                                                  |
| Number of Lanes     | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 0                                                                                   | 1                                                                                   | 0                                                                                   | 0                                                                                   | 1                                                                                   | 0                                                                                   |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 3    | 3    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 3    | 3    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 3    | 3    |
| HCM Control Delay          | 14.8 | 16.8 | 15.2 | 14.3 |
| HCM LOS                    | B    | C    | C    | B    |

| Lane                   | NBLn1 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | WBLn3 | SBLn1 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 54%   | 100%  | 0%    | 0%    | 100%  | 0%    | 0%    | 29%   |
| Vol Thru, %            | 43%   | 0%    | 100%  | 0%    | 0%    | 100%  | 0%    | 38%   |
| Vol Right, %           | 3%    | 0%    | 0%    | 100%  | 0%    | 0%    | 100%  | 32%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 175   | 60    | 290   | 135   | 5     | 290   | 60    | 170   |
| LT Vol                 | 95    | 60    | 0     | 0     | 5     | 0     | 0     | 50    |
| Through Vol            | 75    | 0     | 290   | 0     | 0     | 290   | 0     | 65    |
| RT Vol                 | 5     | 0     | 0     | 135   | 0     | 0     | 60    | 55    |
| Lane Flow Rate         | 182   | 62    | 302   | 141   | 5     | 302   | 62    | 177   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.388 | 0.124 | 0.559 | 0.232 | 0.011 | 0.573 | 0.106 | 0.363 |
| Departure Headway (Hd) | 7.665 | 7.17  | 6.657 | 5.939 | 7.342 | 6.828 | 6.109 | 7.386 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 470   | 500   | 541   | 605   | 488   | 529   | 586   | 487   |
| Service Time           | 5.411 | 4.91  | 4.397 | 3.678 | 5.082 | 4.568 | 3.849 | 5.132 |
| HCM Lane V/C Ratio     | 0.387 | 0.124 | 0.558 | 0.233 | 0.01  | 0.571 | 0.106 | 0.363 |
| HCM Control Delay      | 15.2  | 10.9  | 17.6  | 10.5  | 10.2  | 18.4  | 9.6   | 14.3  |
| HCM Lane LOS           | C     | B     | C     | B     | B     | C     | A     | B     |
| HCM 95th-ile Q         | 1.8   | 0.4   | 3.4   | 0.9   | 0     | 3.6   | 0.4   | 1.6   |

State Bar of Wisconsin Form 3-2003  
**QUIT CLAIM DEED**

Document Number

Document Name

**THIS DEED**, made between Midwest WI, LLC

\_\_\_\_\_  
\_\_\_\_\_, (“Grantor,” whether one or more),  
and Racine County Road Commission

\_\_\_\_\_  
\_\_\_\_\_, (“Grantee,” whether one or more).

Grantor quit claims to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Racine  
County, State of Wisconsin (“Property”) (if more space is needed, please attach addendum):

See attached Exhibit “A”

Recording Area

Name and Return Address  
Midwest WI, LLC  
Attn: Scott M. Knowlton  
1435 Fulton Street, 2nd Floor  
Grand Haven, MI 49417

See attached Exhibit “A”

Parcel Identification Number (PIN)

This is not \_\_\_\_\_ homestead property.  
(is) (is not)

Dated \_\_\_\_\_.

MIDWEST WI, LLC (SEAL)

\_\_\_\_\_  
\* \_\_\_\_\_

\_\_\_\_\_  
\* \_\_\_\_\_ (SEAL)

\_\_\_\_\_  
\* \_\_\_\_\_ (SEAL)

\_\_\_\_\_  
\* \_\_\_\_\_ (SEAL)

**AUTHENTICATION**

Signature(s) \_\_\_\_\_

authenticated on \_\_\_\_\_.

\* \_\_\_\_\_

TITLE: MEMBER STATE BAR OF WISCONSIN

(If not, \_\_\_\_\_  
authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED

BY: \_\_\_\_\_

\_\_\_\_\_

**ACKNOWLEDGMENT**

STATE OF WISCONSIN )  
 ) ss.  
\_\_\_\_\_ COUNTY )

Personally came before me on \_\_\_\_\_,  
the above-named \_\_\_\_\_

to me known to be the person(s) who executed the foregoing  
instrument and acknowledged the same.

\* \_\_\_\_\_

Notary Public, State of Wisconsin  
My Commission (is permanent) (expires: \_\_\_\_\_)

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATIONS TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

© 2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

\* Type name below signatures.



## **Exhibit “A” – 4 Mile Road**

Being a part of the Northwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 28, Township 4 North, Range 23 East, Village of Caledonia, Racine County, Wisconsin, described as follows:

Commencing at the North  $\frac{1}{4}$  corner of Section 28, Township 4 North, Range 23 East, said point also being the point of beginning (POB) of the parcel to be described;

Thence N  $88^{\circ}32'08''$ E along the North line of the Northeast  $\frac{1}{4}$  of said Section 28, 267.82 feet to the Northeast corner of “Parcel II” of lands described and recorded in Document No. 2545762;

Thence S  $00^{\circ}25'38''$ E along the East line of said lands described and recorded, 33.01' to the intersection of said East line and the South right-of-way line of 4 Mile Road;

Thence S  $88^{\circ}32'08''$ W along the South right-of-way line of 4 Mile Road and the westerly extension thereof, 267.82 feet to a point on the West line of the Northeast  $\frac{1}{4}$  of said Section 28;

Thence N  $00^{\circ}25'38''$ W, 33.01 feet to the point of beginning.

Containing: 8,838 Square Feet – 0.203 Acres.

Subject to (if any) covenants, conditions, restrictions, right-of-ways and easements of record.



Meeting Date: October 25, 2021

Item No. 6a

## PLAN COMMISSION REPORT

Proposal: Sign Plan Review

Description: Review a sign plan for installation of multiple wall signs, a monument sign, and directional signs for the existing commercial building located at 13712 Northwestern Avenue.

Applicant(s): Michael Everett

Address(es): 13712 Northwestern Avenue

**Suggested Motion:** That the Plan Commission recommends that the Village Board approve the sign plan submitted by Michael Everett on behalf Pilot Travel Centers as presented for the property located at 13712 Northwestern Avenue for the following reason:

1. The proposed number, height and size of signs are permissible through the sign plan review process.
2. The proposed signs do not result in an undue concentration of signage making it difficult or confusing to read.

---

Owner(s): Pilot Travel Centers

Tax Key(s): 104-04-22-30-022-001

Lot Size(s): 8.63 acres

Current Zoning District(s): B-3, Commercial Service District

Overlay District(s): N/A

Wetlands: ☒ Yes ☐ No Floodplain: ☐ Yes ☒ No

Comprehensive Plan: Industrial/Business Park

---

**Background:** The applicant is requesting approval of a master sign plan for the Pilot Travel Center located at 13712 Northwestern Avenue. The applicant is proposing to replace a monument sign, multiple wall signs, and directional signs on the site. Sign code limits the number of signs for a single tenant building to two signs per street frontage not including window signs or directional signs. The applicant is seeking to replace seven signs. Sign regulations have changed since the initial installation of signs on this site, which are now more restrictive. However, the current zoning code allows modifications to the

---

sign regulations sign size, height, and number if a master sign plan is submitted and approved by the Village.

**Monument Sign:**

The proposed sign will be 130.66 square feet in area and contain an electronic gasoline price board that is 80 square feet in area. The existing sign is 93.6 square feet in area. The proposed sign will be 20 feet tall, which will be two feet taller than the existing sign. Monument signs cannot exceed 48 square feet in area and cannot exceed 8 feet in height. This sign does not comply with existing monument sign height and size. The sign will be located on the south side of the parcel, west of the Northwestern Avenue entrance. The sign will be setback 32 feet from the street yard lot line, meeting minimum setback requirements.

**Wall Signs:**

There are four proposed wall signs replacing two existing wall signs on the building as it pertains to Pilot. No sign changes are proposed for the Arby's located on site. Currently, there is a Pilot sign above the entrance which is 47.5 square feet in area. A similar design sign that is 42 square feet in area will replace it. Also on the southern elevation is a channel letter sign which is internally lit that is 48 square feet. This will be replaced with three snap banner frames that will be externally lit totaling 132 square feet.

**Directional Signs:**

There currently exists four directional signs on site. These signs will be replaced with updated signs that comply with directional sign regulations and meet setback requirements. These types of signs do not count towards the two sign per street frontage regulation.

**Fuel Canopy Signs:**

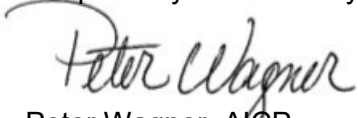
There are multiple existing canopy signs. The applicant will replace with new designs that are similar in size. The total area of these signs along with all signs related to the Arby's count towards the cap of 1,200 square feet of total signage on a site.

The proposed sign plan includes the replacement of walls signs, monument sign, and directional signs along with the existing Arby's signs. The applicant is requesting approval of this master plan to allow for the updating of the signage on the site that exceeds sign regulations. The sum area of all signs on the site is 605 square feet which is within sign regulations for total area of signage on a site. Staff recommends approval of the proposed sign plan as it does not create confusion or clutter along the road landscape with signs and with proximity to the freeway, the larger monument sign will improve readability from the freeway.

If the Plan Commission is comfortable with the proposed sign plan, a suggested motion has been prepared at the beginning of this report.

---

Respectfully submitted by:

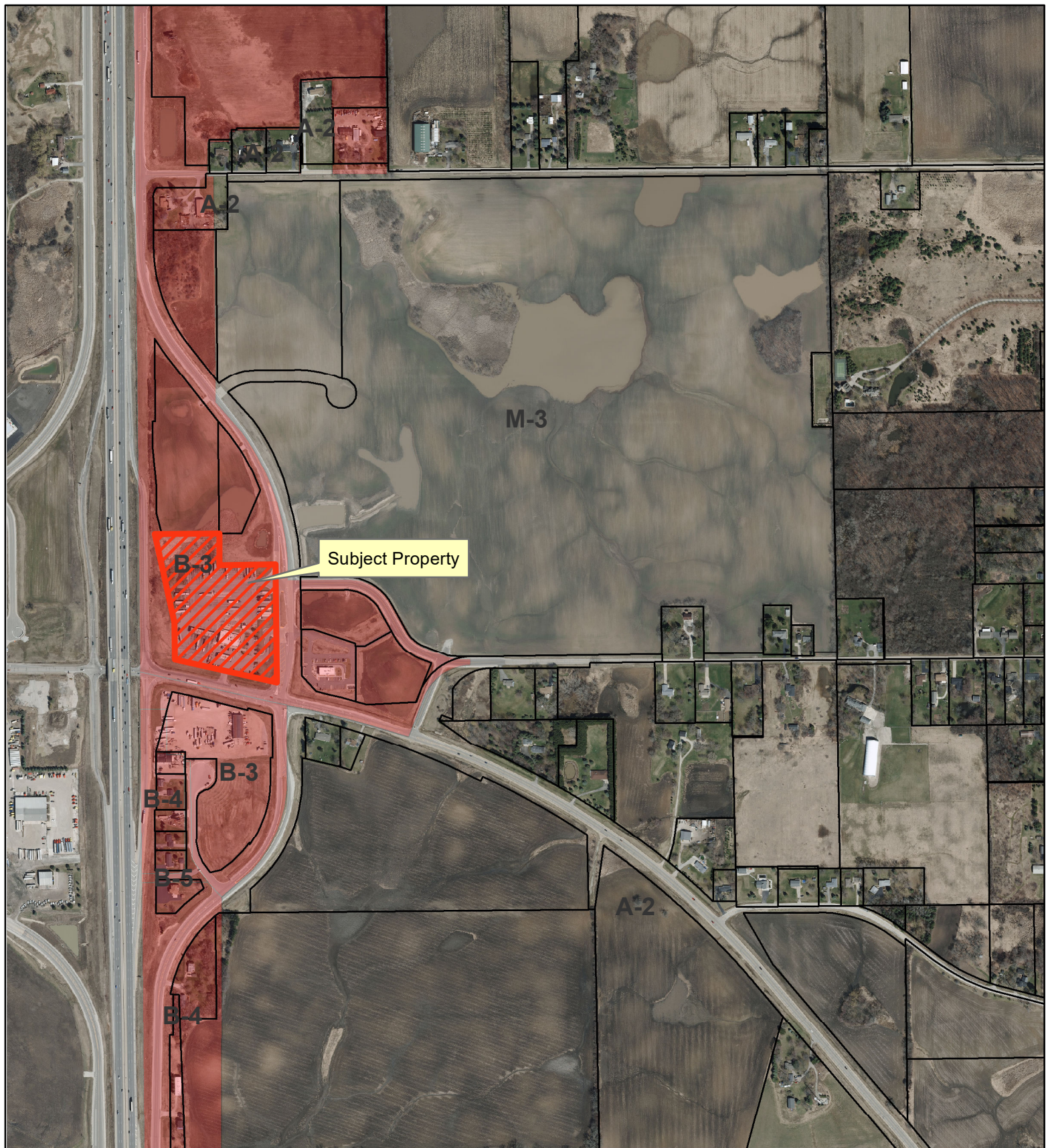


Peter Wagner, AICP  
Development Director



# Location Map

## 13712 Northwestern Avenue





September 24, 2021

Village of Caledonia  
5043 Chester Lane  
Racine, WI 53402

RE: Pilot Travel Centers Signage

Pilot Travel Centers is requesting a sign plan review to keep the existing wall signage for Arby's as is and replace the wall signage for the Pilot side of the store. They are also requesting to replace the ground sign that exist. This change will keep the signage to under 1200 sq ft maximum per property.  
The following is a breakdown comparison of existing signage to proposed signage.

(Sign A)

Existing Ground sign: 18'0" Overall Height @ 93.6 Sq. Ft.  
Proposed Ground sign: 20' Overall Height @ 130.66 Sq. Ft.

(Sign B)

Existing Pilot Wall Sign: 47.5 Sq. Ft.  
Proposed Pilot Wall Sign: 42.0 Sq. Ft.

(Sign C)

Travel Center Letters Wall Sign: 48.0 Sq. Ft.  
Wall Murals: 132.0 Sq. Ft.

(Sign D, E, F, G Directional Signs)

Existing Directional Signs 15.83 Sq. Ft. Ea.  
Proposed Directional Signs 15.83 Sq. Ft. Ea.

(Sign H)

DEF Directional Sign. 15.83 Sq. Ft.  
Removed from site.

Existing Arby's Wall Signage: To remain untouched.

Arby's Letters Front Elevation: 9.43 Sq Ft.  
Arby's Hat Logo Front Elevation: 25.78 Sq Ft.  
Arby's Hat Logo Side Elevation: 25.78 Sq Ft.  
Arby's Letters Driver Entrance: 26.0 Sq Ft

Canopy Signs:

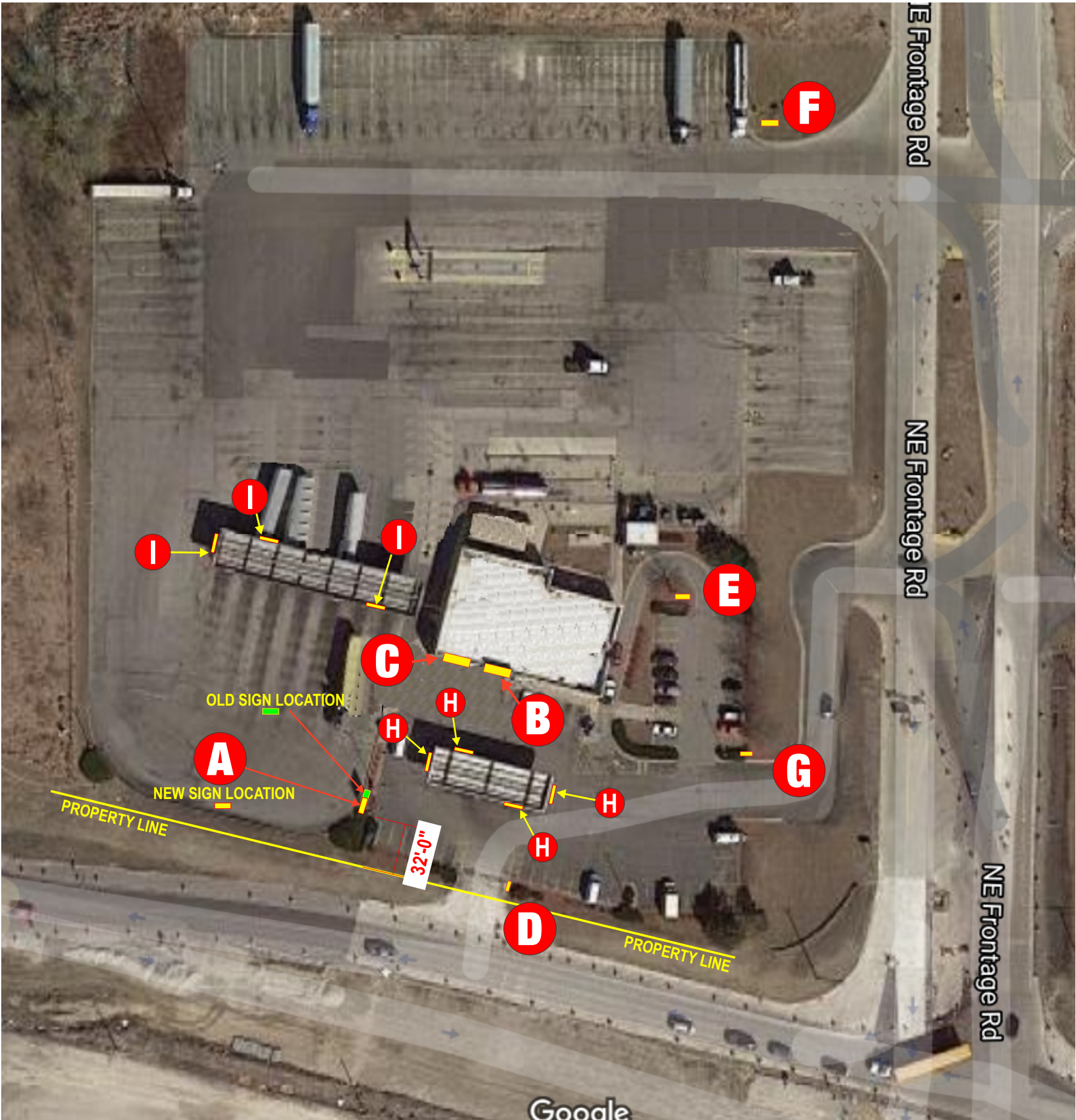
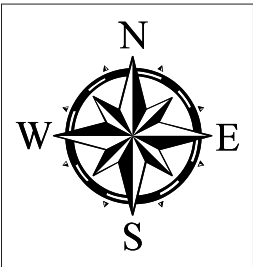
Diesel Canopy 3 Pilot Logos: 21.56 Sq Ft Ea.  
Auto Canopy 4 Pilot Logos: 21.56 Sq Ft Ea.

Total Proposed All signage existing and proposed 605.89 Sq Ft.

SITE PLAN

PILOT # 324  
13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

- A MID-RISE
- B PILOT - WALL SIGN (FRONT)
- C TRAVEL CENTER - (RE-IMAGE)
- D DIRECTIONAL - AUTO ENTRY/EXIT
- E DIRECTIONAL - NO ENTRY
- F DIRECTIONAL - TRUCK ENTRY/EXIT
- G DIRECTIONAL - AUTO ENTRY/EXIT
- H AUTO CANOPY SIGNS
- I DIESEL CANOPY SIGNS



TEXAS REPUBLIC  
SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

**Customer:**  
PILOT - # 324

**Address:**  
13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

**City of Jurisdiction:**  
FRANKSVILLE

**Designer:**  
JORGE

**Date Created:**  
01.17.21

**W.O. #:**

**File Path:**  
P:\2021 JOBS\PI\Pilot\Pilot # 324 - Franksville,  
WI\PRELIM DRAWINGS

REVISIONS

**Rev 1:** 03-25-21 Added graphics to  
Travel Center

**Rev 2:** 06-30-21 Revised mid-rise sign  
to 20 ft ht.

**Rev 3:**

**Rev 4:**

**Rev 5:**

CUSTOMER APPROVAL

**Todd Signature:**

**Date:**

THIS SIGN IS INTENDED TO BE INSTALLED IN  
ACCORDANCE WITH THE REQUIREMENTS OF  
ARTICLE 600OF THE NEC AND/OR OTHER  
APPLICABLE LOCAL CODE. THIS INCLUDES  
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

SITE PLAN

NOT TO SCALE





# TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

**Customer:**  
PILOT - # 324

**Address:**  
13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

**City of Jurisdiction:**  
FRANKSVILLE

**Designer:**  
JORGE

**Date Created:**  
01.17.21

**W.O. #:**

**File Path:**  
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WI\PRELIM DRAWINGS

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to 20 ft ht.

**Rev 3:**

**Rev 4:**

**Rev 5:**

## CUSTOMER APPROVAL

**Todd Signature:**

**Date:**

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## ELECTRICAL REQUIREMENTS

**AMPS: VOLTS: CIRCUITS:**

SIGN TYPE A QUANTITY: 1

SCOPE OF WORK: MID RISE

- REMOVE & DISCARD OF ALL EXISTING SIGNS & STEEL SUPPORT STRUCTURE
- PROVIDE AND INSTALL NEW SIGNS & NEW STEEL SUPPORTS

SPECIFICATIONS: ARBY'S

- CABINET FILLER AND 1 1/2" RETAINERS PAINTED, P1
- FACES: FORMED AND EMBOSSED WITH APPLIED V1 VINYL

SPECIFICATIONS: PILOT

- CABINET FILLER AND 1 1/2" RETAINERS PAINTED, P1
- FACES: FORMED AND EMBOSSED WITH APPLIED V2 VINYL

SPECIFICATIONS: LED GAS PRICER

- 2 PRODUCT PRICER WITH 3' DIGITS PROVIDED BY CLIENT AND INSTALLED BY TRS

PECIFICATIONS: STEEL SUPPORT

- NEW 8" X 8" X 1/2" STEEL TUBES
- DIRECT BURIAL INTO CONCRETE PIERS
- PAINT ENTIRE STEEL STRUCTURE: P1

COLOR LEGEND

PAINT COLORS

1: BLACK

VINYL COLORS TO MATCH

Arby's

1: TO MATCH LOGO COLORS

Faces Painted Red PMS 1795 2nd Surface

Clear Polycarbonate Faces painted White 2nd surface

VINYL COLORS TO MATCH

Pilot

2: TO MATCH LOGO COLORS

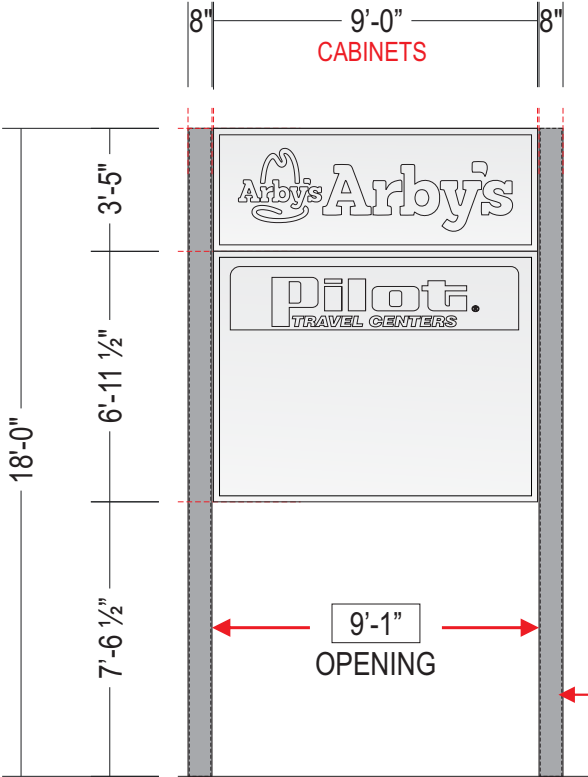
1: 3630-33 RED

2: 3630-53 CARDINAL RED

3: 3630-25 SUNFLOWER YELLOW

|        |       |            |
|--------|-------|------------|
| Arby's | ..... | 30.9 ft    |
| Pilot  | ..... | 62.7 ft    |
| Total  | ..... | 93.6 ft x2 |

|   |        |       |            |
|---|--------|-------|------------|
| A | Arby's | ..... | 25.33 ft2  |
|   | Pilot  | ..... | 25.33 ft2  |
|   | Pricer | ..... | 80.0 ft2   |
|   | Total  | ..... | 130.66 ft2 |



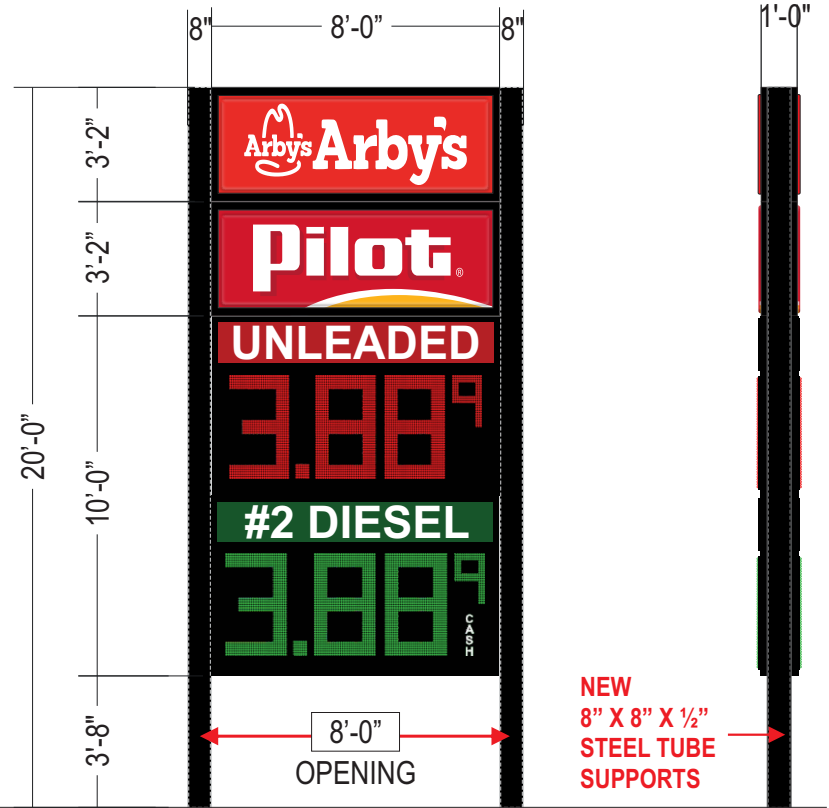
EXISTING CONDITIONS

ELEVATION

SCALE: 3/16" = 1'-0"



EXISTING CONDITIONS



UPDATED CONDITIONS

ELEVATION

SCALE: 3/16" = 1'-0"

TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:  
PILOT - # 324

Address:  
13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

City of Jurisdiction:  
FRANKSVILLE

Designer:  
JORGE

Date Created:  
01.17.21

W.O. #:

File Path:  
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REVISIONS

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Rev 3:

Rev 4:

Rev 5:

CUSTOMER APPROVAL

Todd Signature:

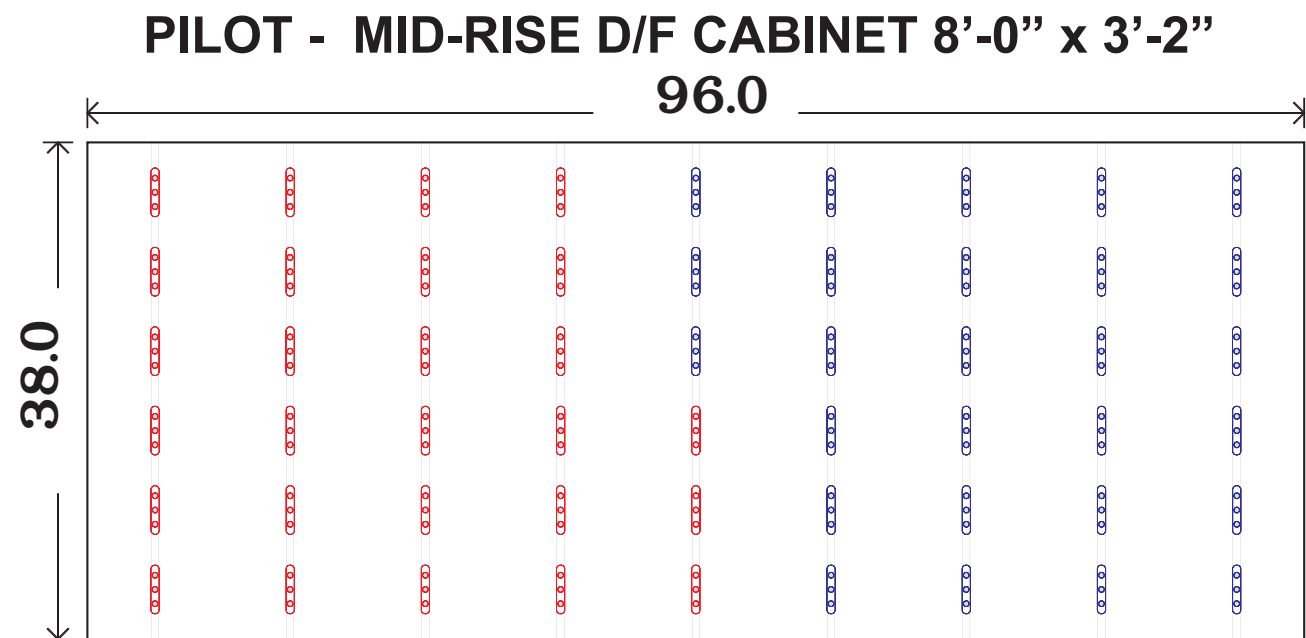
Date:

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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:





| Module                                     | Module Part No.          | Watts      | Power Supply       | Power Supply Part Number |
|--------------------------------------------|--------------------------|------------|--------------------|--------------------------|
| (9) Street Stik DS 42                      | PL-OP2-HW3-P/ST-DS-42-TW | 142.6      | (2) Universal 120W | PL-120-12-U              |
| Date                                       | Row Spacing              | Area       | Perimeter          |                          |
| February 24, 2020                          | 10.9"                    | 54.44 sqft | 23.00 ft           |                          |
| NOTE: 18 MODS PER Universal 96W 24V PS MAX |                          |            |                    |                          |
| NOTE: 7 MODS PER Universal 120W PS MAX     |                          |            |                    |                          |



UPDATED CONDITIONS

25.33  
SQ FT



UPDATED CONDITIONS

25.33  
SQ FT

## TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

### Customer:

PILOT - # 324

### Address:

13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

### City of Jurisdiction:

FRANKSVILLE

### Designer:

JORGE

### Date Created:

01.17.21

### W.O. #:

### File Path:

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WI\PRELIM DRAWINGS

## REVISIONS

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Travel Center

**Rev 2:** 06-30-21 Revised mid-rise sign  
to 20 ft ht.

### Rev 3:

### Rev 4:

### Rev 5:

## CUSTOMER APPROVAL

### Todd Signature:

### Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN  
ACCORDANCE WITH THE REQUIREMENTS OF  
ARTICLE 600OF THE NEC AND/OR OTHER  
APPLICABLE LOCAL CODE. THIS INCLUDES  
PROPER GROUNDING AND BONDING OF SIGN.

## ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

ELEVATION

SCALE: 1/2" = 1'-0"

EXISTING SIGNS

TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:  
PILOT - # 324

Address:  
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City of Jurisdiction:  
FRANKSVILLE

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JORGE

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01.17.21

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to 20 ft ht.

Rev 3:

Rev 4:

Rev 5:

CUSTOMER APPROVAL

Todd Signature:

Date:

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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

C 48.0 SQ FT

B 47.5 SQ FT

26.0 SQ FT



DRIVER ENTRANCE



EXISTING CONDITIONS

ELEVATION

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

9.43 SQ FT

25.78 SQ FT

25.78 SQ FT



TOTAL BUILDING  
SIGNS SQ FOOTAGE  
260.99 SQ FT  
PROPOSED

TOTAL BUILDING  
SIGNS SQ FOOTAGE  
182.49 SQ FT  
EXISTING



SIGN TYPE B QUANTITY: 1

SCOPE OF WORK: WALL SIGN  
REMOVE & DISPOSE OF EXISTING PILOT WALL SIGN  
PROVIDE AND INSTALL NEW PILOT WALL SIGN

SPECIFICATIONS: PILOT SIGN  
• CABINET FILLER AND 2" RETAINERS PAINTED, P1  
• FACES: FORMED AND EMBOSSED WITH APPLIED V1 VINYL

SPECIFICATIONS: MOUNTING  
• MOUNTING: INSTALL SIGN ONTO EXISTING WALL

COLOR LEGEND

PAINT COLORS

1: BLACK

VINYL COLORS TO MATCH

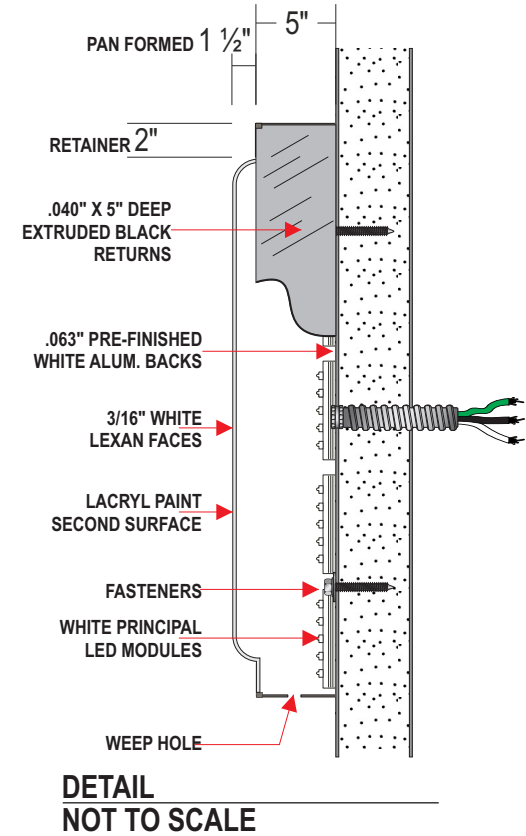
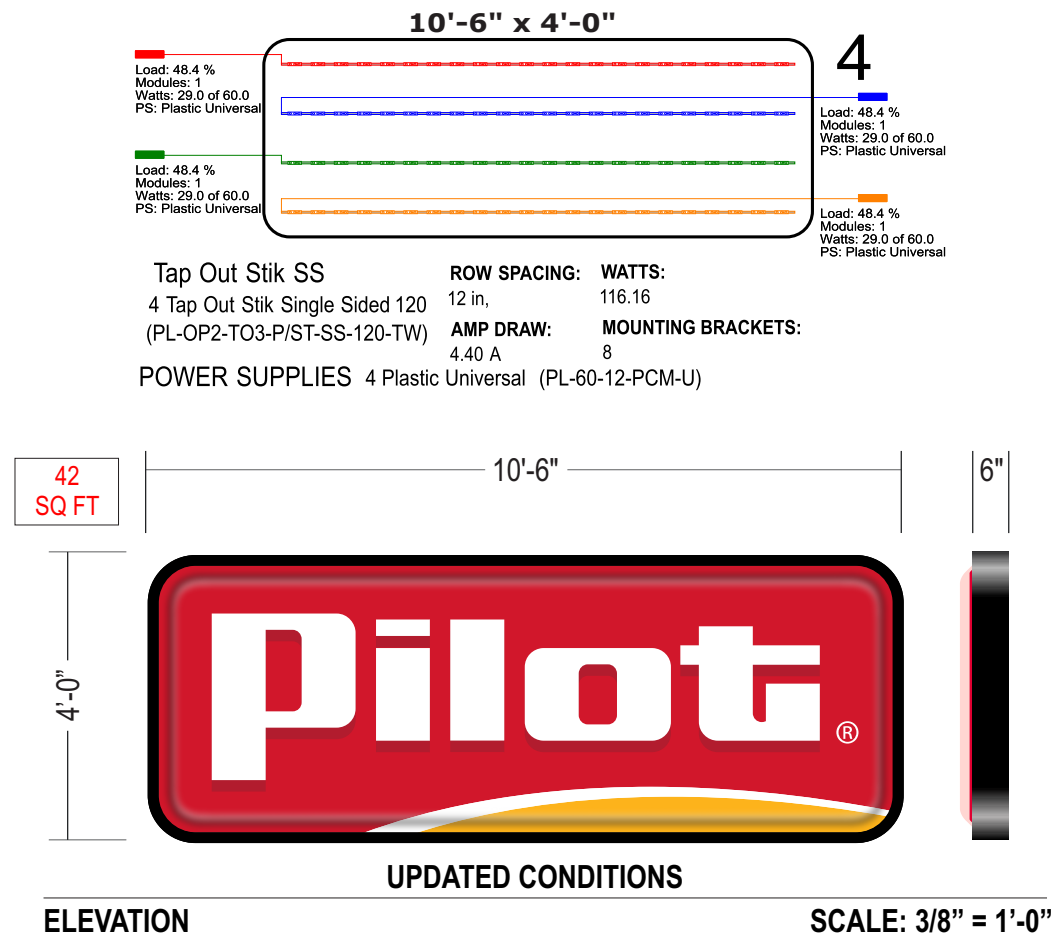
Pilot

V1: TO MATCH LOGO COLORS

1: 3630-33 RED

2: 3630-53 CARDINAL RED

3: 3630-25 SUNFLOWER YELLOW



PATCH AND PAINT TO MATCH EXISTING WALL COLOR

42.0 SQ FT



EXISTING CONDITIONS

ELEVATION



UPDATED CONDITIONS

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

TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:  
PILOT - # 324

Address:  
13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

City of Jurisdiction:  
FRANKSVILLE

Designer:  
JORGE

Date Created:  
01.17.21

W.O. #:

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REVISIONS

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03-25-21 Added graphics to Travel Center

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06-30-21 Revised mid-rise sign to 20 ft ht.

Rev 3:

Rev 4:

Rev 5:

CUSTOMER APPROVAL

Todd Signature:

Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600OF THE NEC AND/OR OTHER APPLICABLE LOCAL CODE. THIS INCLUDES PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

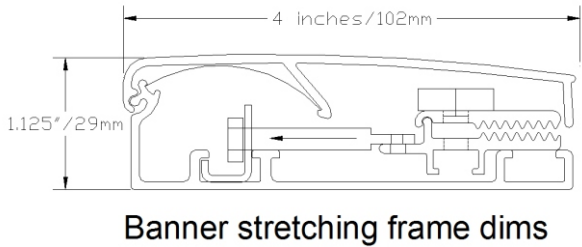
AMPS: VOLTS: CIRCUITS:

PAGE: 6

SIGN TYPE C QUANTITY: 1

SCOPE OF WORK

- REMOVE EXISTING “TRAVEL CENTER” SIGN AND “BOX” LIGHT FIXTURES. PROPERLY TERMINATE ELECTRICAL AND INSTALL WEATHERPROOF COVER AT EXISTING JUNCTION BOXES. WHERE EXPOSED, PAINT TO MATCH FIELD OF WALL.
- INSTALL NEW GOOSENECK LIGHT FIXTURES IN PLACE OF “BOX” LIGHT TOP ROW – SUPPLY FROM HJC
- INSTALL NEW SNAPFRAMES BELOW GOOSENECK LIGHTS – SIZED AND SPACED ACCORDING TO THE ATTACHED MODEL CONDITIONS – IF ODD CONDITION IS ENCOUNTERED, CLIENT TO PROVIDE GUIDANCE – SUPPLY FROM DFAB
- PAINT TOUCH-UP TO MATCH EXISTING – ALTERNATE: IF BUILDING IS TO BE PAINTED, THE ATTACHED COLOR SCHEMES ARE TO BE USED. ALSO HAVE WILLIAMS, FJ AND SPEEDWAY SCHEMES AVAILABLE.



EXISTING CONDITIONS - (FRONT ENTRANCE)

ELEVATION

NOT TO SCALE

48.0 SQ FT  
36.0 SQ FT  
48.0 SQ FT  
TOTAL = 132.0 SQ FT



SNAP BANNER FRAMES  
(SIZES AS PER GUIDELINES  
PROVIDED BY CLIENT)

EXTERIOR GRADE  
GOOSE NECK  
LIGHTS

CLIENT PROVIDED  
ARTWORK

SNAP BANNER FRAMES  
• SMALLER FRAME CENTERED  
OVER SINGLE LIGHT  
• LARGE FRAMES CENTERED  
OVER TWO LIGHTS

UPDATED CONDITIONS

ELEVATION

SCALE: 3/16" = 1'-0"

TEXAS REPUBLIC  
SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:

PILOT - # 324

Address:

13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

City of Jurisdiction:

FRANKSVILLE

Designer:

JORGE

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WI\PRELIM DRAWINGS

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Rev 5:

CUSTOMER APPROVAL

Todd Signature:

Date:

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APPLICABLE LOCAL CODE. THIS INCLUDES  
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:

Scope Of Work: Remove & Discard Existing Directional Signs and concrete base. Install New Directional Signs

ELECTRICAL DIRECTIONAL SIGNS

TEXAS REPUBLIC  
SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:  
PILOT - # 324

Address:  
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CUSTOMER APPROVAL

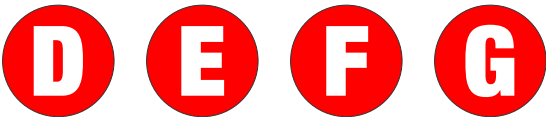
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Date:

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ARTICLE 600OF THE NEC AND/OR OTHER  
APPLICABLE LOCAL CODE. THIS INCLUDES  
PROPER GROUNDING AND BONDING OF SIGN.

ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:



15.83 SQ FT EA

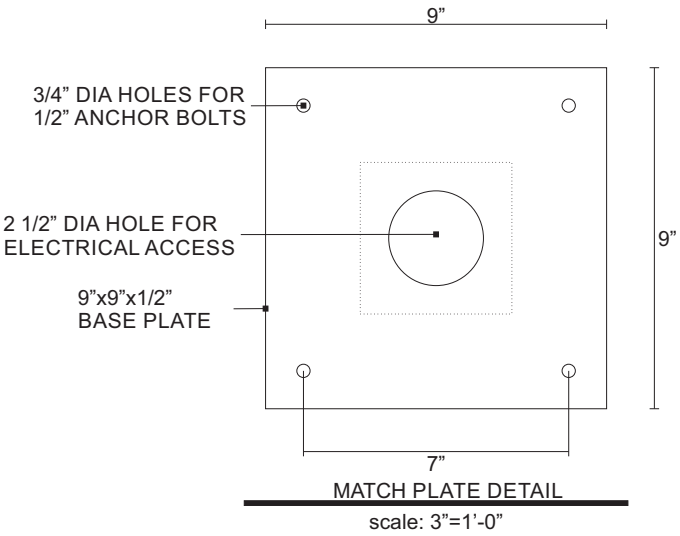
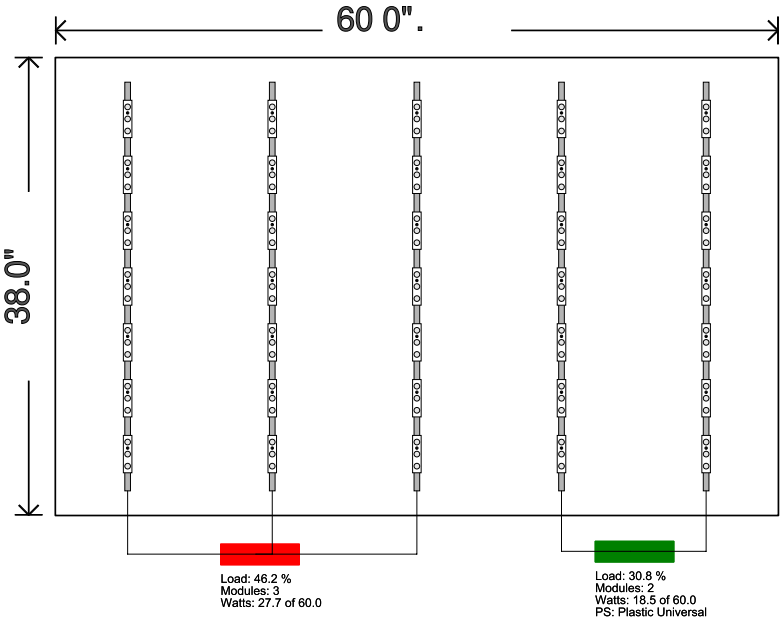
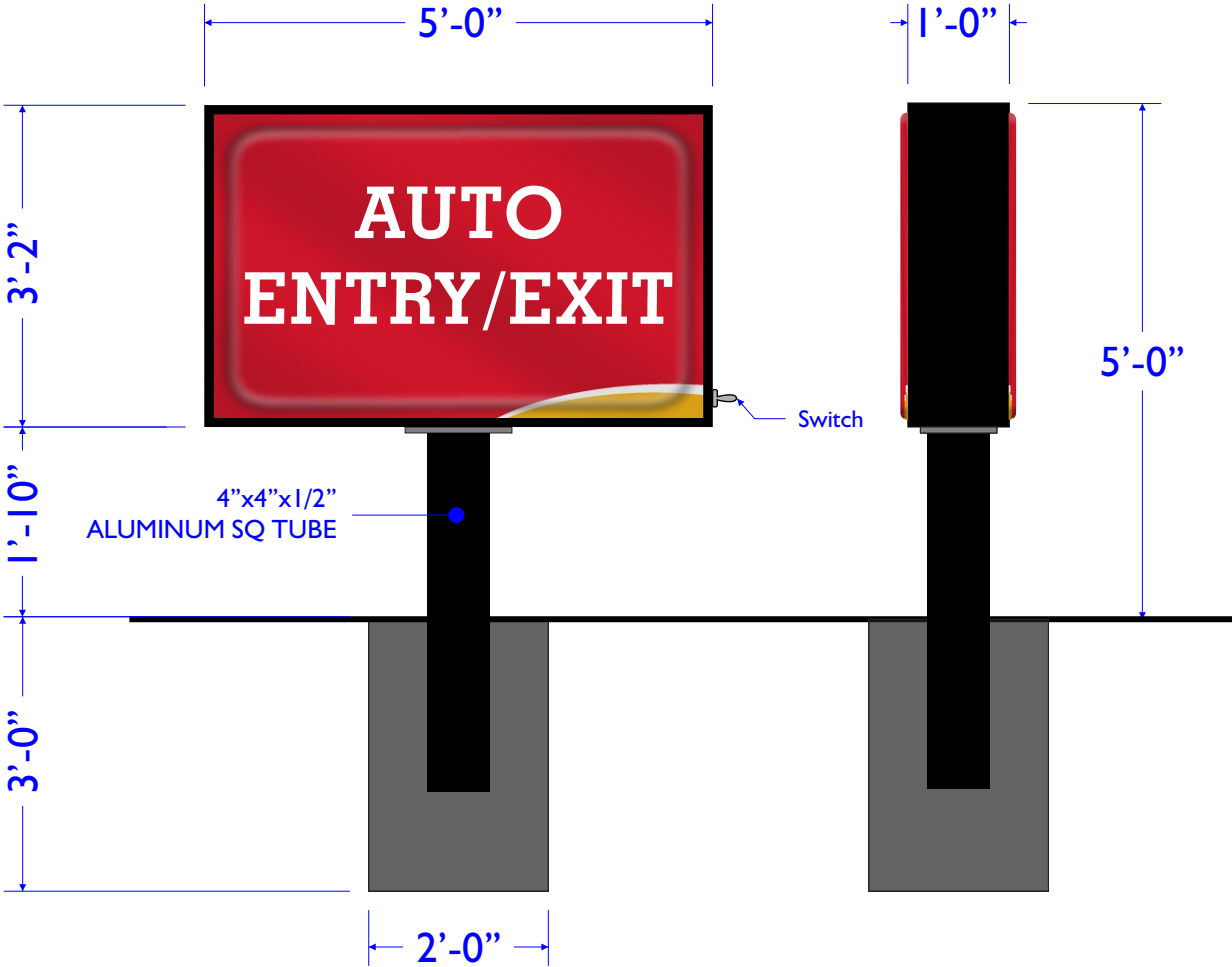
DIRECTIONAL SIGN

@J?AI

1K! 141. +11 PCB

5503+. U F R C T G W

1K! 141. +03 QSL DJ MU CP WCJJ MU

ALL PAINT FINISHES TO BE HIGH GLOSS  
UNLESS OTHERWISE SPECIFIED

Scale: 1"=22.67"



ELECTRICAL DIRECTIONAL SIGNS

15.83 ft2

SIDE A

SIDE B

D



(X1)



E



(X1)



F



(X1)



G



(X1)



D



E



F



GOOGLE MAPS IMAGE



SURVEY IMAGE - SIGN IS MISSING



EXISTING CONDITIONS

NOT TO SCALE

TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

Customer:

PILOT - # 324

Address:

13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

City of Jurisdiction:

FRANKSVILLE

Designer:

JORGE

Date Created:

01.17.21

W.O. #:

File Path:

P:\2021 JOBS\PI\Pilot\Pilot # 324 - Franksville,  
WI\PRELIM DRAWINGS

REVISIONS

Rev 1: 03-25-21 Added graphics to  
Travel Center

Rev 2: 06-30-21 Revised mid-rise sign  
to 20 ft ht.

Rev 3:

Rev 4:

Rev 5:

CUSTOMER APPROVAL

Todd Signature:

Date:

THIS SIGN IS INTENDED TO BE INSTALLED IN  
ACCORDANCE WITH THE REQUIREMENTS OF  
ARTICLE 600OF THE NEC AND/OR OTHER  
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AMPS: VOLTS: CIRCUITS:

Scale: 1"=22.67"

# AUTO CANOPY

E1



Non-Illuminated

E2



Illuminated

E4



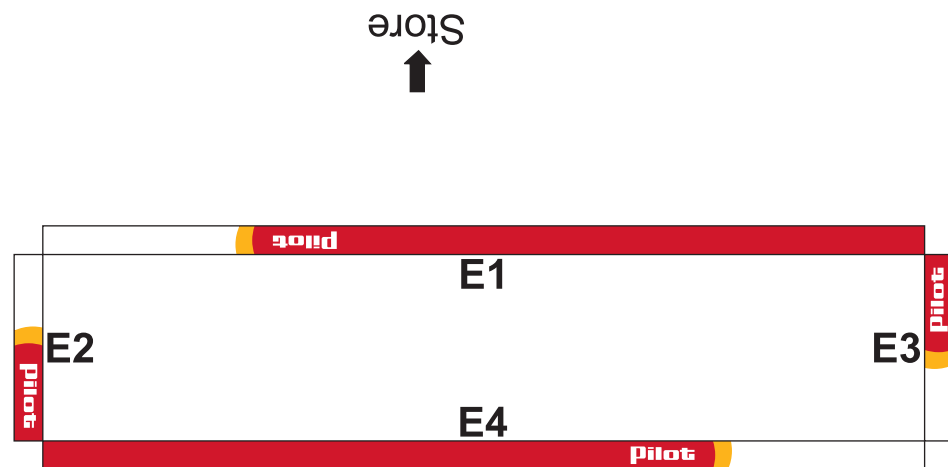
Illuminated

E3

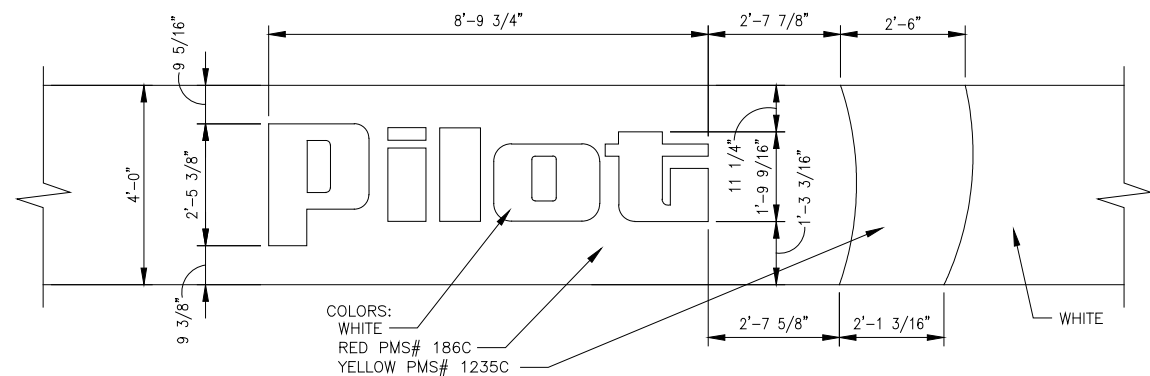


Illuminated

### Plan View Approximate Scale



**21.56 SQ FT**



07 INTERNALLY ILLUMINATED PANAFLEX CANOPY LOGOS.  
SQUARE FOOTAGE: 21.56 SF.

## CANOPY SIGNS

SCALE: 3/8" = 1'-0"

## TEXAS REPUBLIC SIGNS

2211 PECH RD HOUSTON TX 77055  
832-727-5415  
TEXASREPUBLICSIGNS.COM

**Customer:**  
PILOT - # 324

**Address:**

13712 NORTHWESTERN AVE.  
FRANKSVILLE, WI 53126

**City of Jurisdiction:**  
FRANKSVILLE

**Designer:**  
JORGE

**Date Created:**  
01.17.21

W.O. #:

File Path:

P:\2021 JOBS\P\Pilot\Pilot # 324 - Franksville,  
WI\PRELIM DRAWINGS

## REVISIONS

**Rev 1:** 03-25-21 Added graphics to Travel Center

**Rev 2:** 06-30-21 Revised mid-rise sign to 20 ft ht.

**Rev 3:**

**Rev 4:**

**Rev 5:**

## CUSTOMER APPROVAL

**Todd Signature:**

Date:

**THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600OF THE NEC AND/OR OTHER APPLICABLE LOCAL CODE. THIS INCLUDES PROPER GROUNDING AND BONDING OF SIGN.**

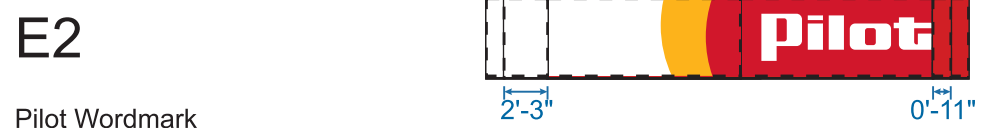
## ELECTRICAL REQUIREMENTS

**AMPS: VOLTS: CIRCUITS:**

DIESEL CANOPY



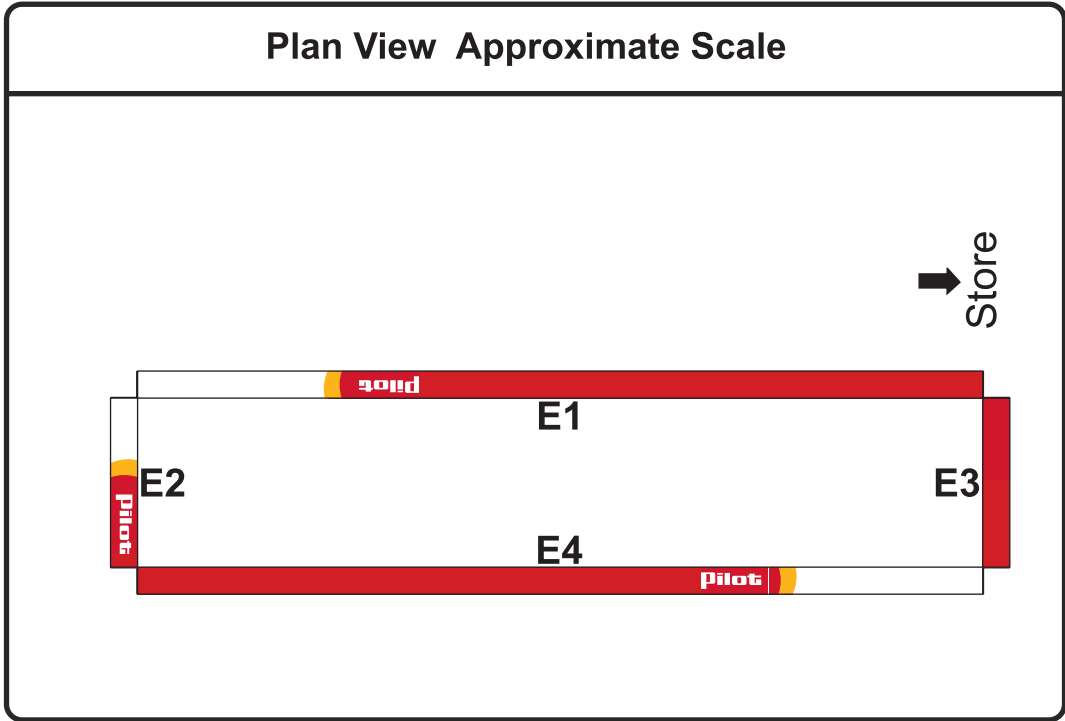
Pilot Wordmark  
Sweep



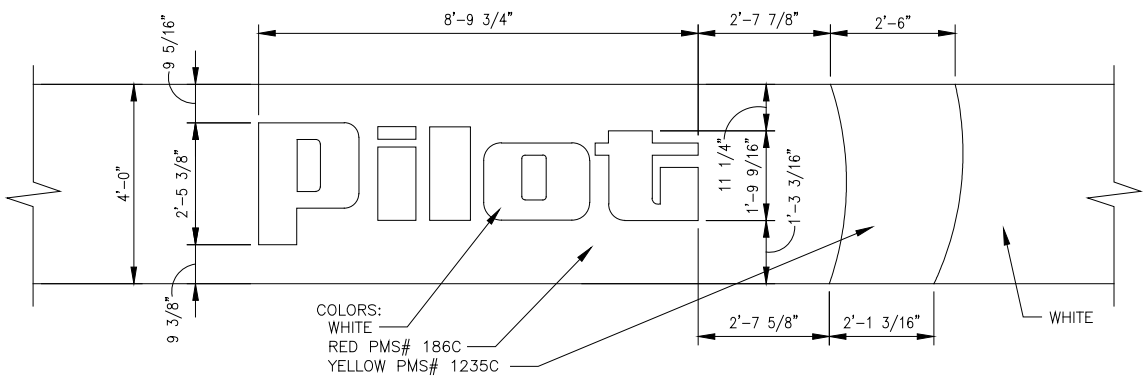
Pilot Wordmark  
Sweep



Pilot Wordmark  
Sweep



21.56 SQ FT



07 INTERNALLY ILLUMINATED PANAFLEX CANOPY LOGOS.  
SQUARE FOOTAGE: 21.56 SF.

CANOPY SIGNS  
SCALE: 3/8" = 1'-0"

TEXAS REPUBLIC  
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City of Jurisdiction:  
FRANKSVILLE

Designer:  
JORGE

Date Created:  
01.17.21

W.O. #:

File Path:  
P:\2021 JOBS\PI\Pilot\Pilot # 324 - Franksville,  
WI\PRELIM DRAWINGS

| REVISIONS                                          |
|----------------------------------------------------|
| Rev 1: 03-25-21 Added graphics to Travel Center    |
| Rev 2: 06-30-21 Revised mid-rise sign to 20 ft ht. |
| Rev 3:                                             |
| Rev 4:                                             |
| Rev 5:                                             |

CUSTOMER APPROVAL

Todd Signature:

Date:

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ELECTRICAL REQUIREMENTS

AMPS: VOLTS: CIRCUITS:





Meeting Date: October 25, 2021

Item No. **6b**

## PLAN COMMISSION REPORT

Proposal: Cooperative Boundary Agreement Review

Description: Review a request to approve a certified survey map for a parcel located at 3205 3 Mile Road and rezone the Lot 2 from A-1 and A-2, Agricultural Zoning Districts to M-2, General Industrial District in the Village of Raymond.

Applicant(s): Briohn Land Development LLC

Address(es): 3205 3 Mile Road

**Suggested Motion:** That the Plan Commission recommends to the Village Board that the proposed certified survey map for the parcel located at 3205 3 Mile Road and that proposed Lot 2 (22.34 acres) be rezoned from A-1, Farmland Preservation District and A-2, General Farming and Residential District II to M-2, General Industrial District Use for future development of a semi-truck repair and storage business in the Village of Raymond be approved for the following reasons:

1. The Village of Raymond Plan Commission and Village Board granted approval of the proposed certified survey map and rezone.
2. The proposed M-2 District is in accord with the 2035 Land Use Plan for the Village of Raymond.
3. The proposed certified survey map and rezoning is allowed by underlying zoning through the Cooperative Boundary Agreement review process.
4. Due to the parcel's proximity to the Interstate, the requested zoning district should be encouraged in this area.
5. At the time of development, the applicant will be required to come before the Village of Caledonia for site plan review. Any development will need to meet the intent of the Village of Caledonia development standards and be considered a spectacular use for this parcel to be allowed to proceed without connecting to sewer and water in accordance with the Cooperative Boundary Agreement between the Villages of Raymond and Caledonia.

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Owner(s): Tony Janicek

Tax Key(s): 168-04-21-25-004-200

Lot Size(s): 80.44 acres      Proposed Lots: 36.29 acres, 22.92 acres, & 21.23 acres

Current Zoning District(s): A-1, Farmland Preservation District, A-2, General Farming and Residential District II

Overlay District(s): N/A

Wetlands: ☒ Yes ☐ NoFloodplain: ☒ Yes ☐ No

Comprehensive Plan: Industrial and Business Park

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**Background:** The applicant is requesting approval of a certified survey map creating three lots for the parcel located at 3205 3 Mile Road. In addition, the applicant is requesting a rezone of Lot 2 (22.34 acres) from A-1, Farmland Preservation District and A-2, General Farming and Residential District II to M-2, General Industrial District for the future development of a semi-truck repair and storage business.

These requests will be reviewed by the Village of Raymond Plan Commission and Village Board at the same night as the Plan Commission's meeting. The Zoning Administrator for the Village of Raymond recommends approval of both the CSM and rezone request for the parcel as it complies with CSM parameters, and the rezone request is consistent with the Raymond Land Use Plan. The parcel is located 700 west of the Blackhawk Industrial Park which is zoned M-2, General Industrial District and located along the interstate.

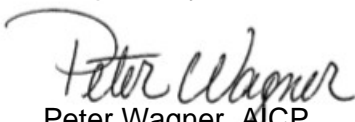
As part of the Cooperative Boundary Agreement, the Village of Caledonia has the authority to review and approve proposed CSMs, rezones, variances, plats, land use amendments, site plans, and conditional uses. Staff concurs with the Raymond Zoning Administrator's recommendation that the proposed rezone request is consistent with the land use plan for the area and the proximity of the parcel to the interstate lends itself to this type of zoning classification. Furthermore, the proposed CSM conforms with subdivision regulations except for minor corrections such as noted on the CSM included with this report.

When the applicant is ready to propose a development, Caledonia will have the authority to review the site plan and make the determination of whether the proposed development is of a spectacular use and therefore not be required to connect to sewer and water and meet development design standards.

If the Plan Commission is comfortable with the proposed CSM and requested rezoning, staff drafted a suggested motion to approve the CSM and rezone for 22.92-acre lot located at 3205 3 Mile Road.

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Respectfully submitted:



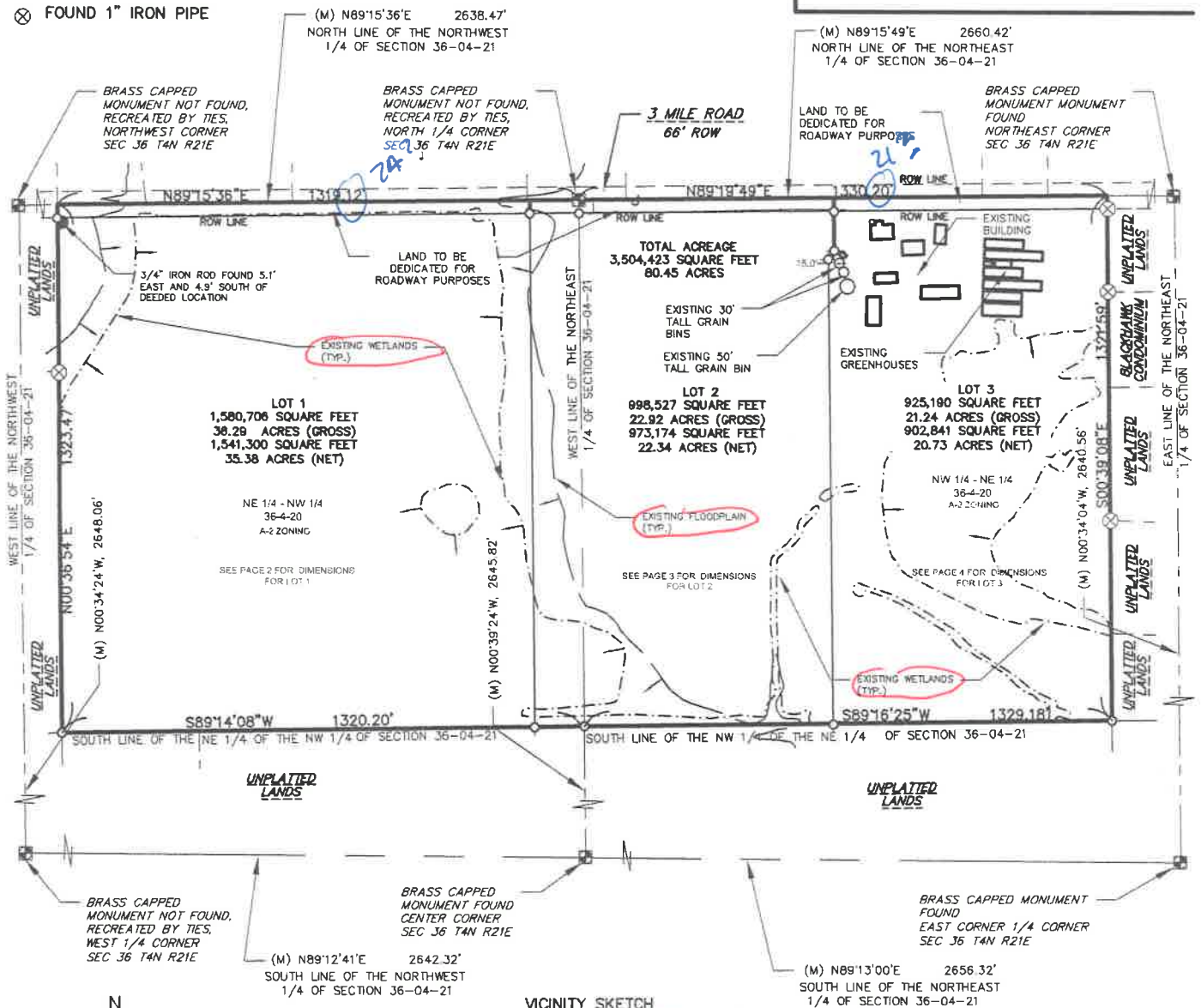
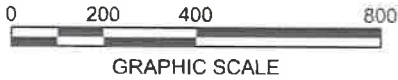
Peter Wagner, AICP  
Development Director

# CERTIFIED SURVEY MAP -

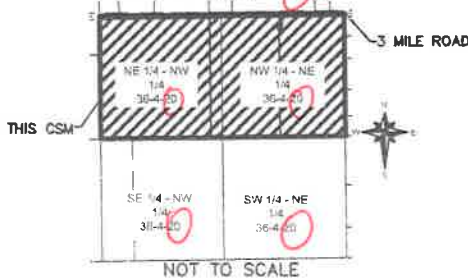
Being part of Unplatted Land, located in part of the Northwest 1/4 of the Northeast 1/4 and part of the Northeast 1/4 of the Northwest 1/4 of Section 36, Township 4 North, Range 21 East, Village of Raymond, Racine County, Wisconsin.

### SURVEY LEGEND

- GOVERNMENT MONUMENT FOUND (AS NOTED)
- ◇ 1 1/2" IRON PIPE SET 18" LONG AND 1.13 LBS / PER FOOT
- FOUND 3/4" IRON REBAR
- ⊗ FOUND 1" IRON PIPE



### VICINITY SKETCH



**OWNER/SUBDIVIDER:**  
Anthony & Carol Janicek  
3205 W. 3 Mile Rd.  
Franksville, WI 53126  
920-832-6443

**PREPARED BY:**  
Ruekert & Mielke, Inc.  
W233 N2080 Ridgeview Pkwy.  
Waukesha, WI 53188  
262-542-5733

BEARINGS ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83, NORTH LINE OF THE NE 1/4 OF 36-4-21, MEASURED AS N89°15'49"E.



**Ruekert • Mielke**  
www.ruekertmielke.com

# DRAFT

Chris Ruetten, P.L.S. 2942  
Dated this 4th day of Oct., 2021

SHEET 1 OF 7

THIS INSTRUMENT WAS DRAFTED BY JOHN SCHULZ (10/4/21), CHECKED BY: CHRIS RUETTEN, P.L.S., (10/4/21)