**ENGINEERS • SURVEYORS •** LANDSCAPE ARCHITECTS

**BME** ASSOCIATES

February 9, 2024

Town Board Town of Perinton 1350 Turk Hill Road Fairport, New York 14450

Attn: Ciaran Hanna, Town Supervisor

#### Re: Fellows Road Properties-Pride Mark PDD Rezoning Application

- T.A. #140.04-1-39
- T.A. #140.04-1-40
- T.A. #140.04-1-4
- T.A. #140.04-1-7

#### Dear Supervisor Hanna:

On behalf of Pride Mark Homes, we are pleased to submit the enclosed Rezoning application for the above-referenced project. We request to appear at the Town Board's next available meeting to introduce this project, and have enclosed twelve (12) copies of the following application materials for your review:

- Letter of Intent
- Rezoning Application
- Owner Authorization to Make Application
- PDD Project Narrative
- PDD Fact Sheet
- Full EAF, Parts 1, 2, and 3
- Property Deeds (1 copy)
- Conventional Plan (BME dwg #2789-01
- PDD Concept Site Plan (BME dwg #2789-02
- PDD Concept Utility Plan (BME dwg #2789-03
- Surrounding Neighborhoods Exhibit
- Rezoning Application Fee (\$400)

This proposal is for the rezoning of four (4) tax parcels totaling  $\pm 63.1$  acres, which are situated on the east side of Fellows Road, immediately south of the Perinton/Penfield municipal boundary from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD). Pride Mark Homes proposes 171 for-sale residential units with a mix of single-family homes, patio homes and townhomes. The proposal represents a density of 2.71 units/acre.

The enclosed materials outline the proposed development. The PDD Project Narrative presents the information as required per Chapter 208-52 of the Town Code, including the project's purpose of meeting the goals of the Town of Perinton's 2021 Comprehensive Plan.

The 2021 Comprehensive Plan identifies the subject parcels as being suitable for Medium Density Residential Development. The Comprehensive Plan also states these areas, because of their access to

2789

available infrastructure, are suitable for the density which will address current housing needs within the Town of Perinton. The proposed density of 2.71 units/acre is commensurate with Residential B zoning in the Town, and consistent with medium density development standards. The proposal also provides a mix of housing to offer variety in housing types and price points; both of which are stated goals within the Comprehensive Plan

Pursuant with Town Code §208-52.E.(1)(a)[3], we respectfully request that the Town Board accept this application and schedule this matter for a public hearing. Following the public hearing we request that the Town Board refer the proposed PDD rezoning applications to the Town Planning Board and Conservation Board for review and recommendation, and also to the Monroe County Planning Board for their 239-M referral.

The proposal is a Type 1 action pursuant to SEQRA, and we request that the Town Board declare their intent to be lead agency for the coordinated review. The completed Full EAF is provided for your use. As described in the PDD Project Narrative, the EAF has been prepared for both the Pride Mark Homes proposal and the adjoining Aristo Properties proposal (application submitted separately) to allow the Town Board, as lead agency to conduct a comprehensive coordinated SEQRA process.

Please review and contact our office with any questions in advance of the next available Town Board meeting.

Thank you,

Sincerely, **BME Associates** 

Peter G Vars

Peter G. Vars, P.E.

/PGV

Encl.

c: James P. Barbato; Pride Mark Homes



TOWN OF PERINTON 1350 TURK HILL ROAD. FAIRPORT, NEW YORK 14450-8796 (585) 223-0770, Fax: (585) 223-3629, <u>www.perinton.org</u>

	torZip_14564 Other , Fellows Road (T.A. #140.04-1-40) Phone
APPLICATION FORM – REZONING – TOWN BOARD See attached instructions/requirements/procedures 1. APPLICANT Name_Pride_Mark Homes Street & Number_1501 Pittsford-Victor Road, Suite 200_City_Vict Interest in Property:OwnerLessee* 250 Fellows Road (T.A. #140.04-1-39), 2. OWNER (if other than applicant) Name_William Metrose, Ltd. Street& Number_55 Sullys TrailCity_F * 200 Fellows Road (T.A. #140.04-1-4), Fellows R	Phone_(585) 249-8182 torZip_14564 Other , Fellows Road (T.A. #140.04-1-40) Phone
See attached instructions/requirements/procedures  1. APPLICANT Name_Pride_Mark Homes  Street & Number_1501 Pittsford-Victor Road, Suite 200_City_Vict Interest in Property:OwnerLessee_                 * 250 Fellows Road (T.A. #140.04-1-39),  2. OWNER (if other than applicant) Name_William Metrose, Ltd.  Street& Number_55 Sullys TrailCity_F                 * 200 Fellows Road (T.A. #140.04-1-4), Fellows Road	torZip_14564 Other , Fellows Road (T.A. #140.04-1-40) Phone
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Name_       Pride Mark Homes         Street & Number_       1501 Pittsford-Victor Road, Suite 200CityVictor         Interest in Property:       ✓       OwnerLessee	torZip_14564 Other , Fellows Road (T.A. #140.04-1-40) Phone
Street & Number 1501 Pittsford-Victor Road, Suite 200	torZip_14564 Other , Fellows Road (T.A. #140.04-1-40) Phone
Interest in Property: <u>V</u> Owner Lessee * 250 Fellows Road (T.A. #140.04-1-39), 2. OWNER (if other than applicant) Name William Metrose, Ltd. Street& Number 55 Sullys Trail City F * 200 Fellows Road (T.A. #140.04-1-4), Fellows R	Other Fellows Road (T.A. #140.04-1-40) Phone
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Street& Number 55 Sullys Trail City F * 200 Fellows Road (T.A. #140.04-1-4), Fellows R	
* 200 Fellows Road (T.A. #140.04-1-4), Fellows R	4.450.4
	PittsfordZip14534
<b>3. ATTORNEY</b> (If represented)	Road (T.A. #140.04-1-7)
Name	Phone
Street& NumberCity	Zip
<ul> <li>4. INTEREST: Does any officer or employee of the State of New <sup>7</sup> have any interest in the owner/applicant or the subject property?</li> <li>Yes <u>No</u> <u>V</u> Explain INTEREST</li> </ul>	
If yes, who? NameAddress	
5. LOCATION: Street Address or Legal Description (subdivision)	
250 Fellows Road (T.A. #140.04-1-39), Fellows Road (T	$\Gamma \Delta = \#1/(0.0/1_1/(0))$

	6. SIZE OF PARCEL: <u>±63.1 acres</u>
9. Describe specifically the nature of your request Rezone the property to Planned Development District (PDD)         for a proposed 171-unit, mixed used residential development. A summary of the proposed residential         PDD is as follows: 55 patio homes, 26 single-family homes, 90 townhome units.	7. PRESENT USE OF PROPERTY: Vacant land
for a proposed 171-unit, mixed used residential development. A summary of the proposed residential         PDD is as follows: 55 patio homes, 26 single-family homes, 90 townhome units.	8. ZONING DISTRICT: RT-1.2.5 TAX ACCOUNT#_ See #5 Above
PDD is as follows: 55 patio homes, 26 single-family homes, 90 townhome units.         10. Describe the location, use and size of structures and other land use within 100 feet of the boundaries of the subject property         West: single-family lots along Fellows Road         North: townhomes in the Arbor Ridge Development         East: single-family lots and agricultural uses along Huber Road.         South: vacant parcel         11. The criteria used by the Town Board of the Town of Perinton are set forth in Section 265 of the Town Law.         A. You must show that your proposal will be in harmony with the general purpose and intent of the Zoning Ordinance of the Town of Perinton, considering the location, the nature and intensity of the operations involved in or conducted in connection with it, and the size of the subject property with respect to the streets giving access to the subject property.         Will your proposed use be detrimental to the neighborhood due to Location? NO YES         The nature or magnitude of use? NO YES         Inadequate access to property? NO YES	9. Describe specifically the nature of your request Rezone the property to Planned Development District (PDD)
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explain how:	A. You must show that your proposal will be in harmony with the general purpose and intent of the Zoning Ordinance of the Town of Perinton, considering the location, the nature and intensity of the operations involved in or conducted in connection with it, and the size of the subject property with respect to the streets giving access to the subject property. Will your proposed use be detrimental to the neighborhood due to Location? NO $V$ YES $YES$ The nature or magnitude of use? NO $V$ YES $YES$ Inadequate access to property? NO $V$ YES $YES$ If yes to any of above, explain how it will be detrimental. If effect can be lessened in some manner,

В.	Will your propos	ed use tend to dep	preciate adjacent proper	ty or alter or be detri	mental to the character	r of the neighborhood?
NC	)	YES				

If yes, explain how it will be detrimental. If effect can be lessened in some manner, explain how:

C. Will your proposed use create a hazard to health, or the general welfare of the neighborhood or significantly alter the flow of traffic? NO\_\_\_\_\_YES\_\_\_\_\_

If yes, explain how. If effect can be lessened in some manner, explain how.

12. You must show that your proposal will be in harmony with the general purpose and intent of the Comprehensive Plan of the Town of Perinton. Please provide a brief narrative that describes to relation of the proposal to the most recent update of the comprehensive plan.

See enclosed Letter of Intent and Project Narrative for the proposed residential PDD Development

I certify that the information supplied on this application is complete and accurate, and that the project described, if approved, will be completed and the premises used as stipulated in this request.

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ed name of Applicani	James P Barbato	

Property Owner (If other than applicant) I have read and familiarized myself with the contents of this application and do hereby consent to its submission and processing.

Signature of property owner\_\_\_\_\_\_Date\_\_\_\_\_\_Date\_\_\_\_\_\_

Printed Name of property owner\_\_\_\_\_

3/23/19

# <u>Fellows Road Properties</u> <u>PDD-Planned Development District</u> <u>Project Narrative</u>

# I. Introduction

The enclosed materials constitute the re-zoning applications to the Perinton Town Board for two separate residential developments proposed for the Fellows Road corridor, north of Furman Road in the Town of Perinton. The two applicants, Aristo Properties Inc., and Pride Mark Homes are requesting the rezoning of lands from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD) under Town Code §208-52 (hereinafter, "the proposed PDD").

The two projects are proposed by two well respected developers with a history of many successful projects being completed within the Town of Perinton community. The Pride Mark Homes project will consist of four tax parcels totaling  $\pm 63.1$  acres, which are situated on the east side of Fellows Road, immediately south of the Perinton/Penfield municipal boundary. The Pride Mark properties owned or under option consist of:

- 250 Fellows Road (T.A. #140.04-1-39): ±24.59 acres
- Fellows Road (T.A. #140.04-1-40): ±0.52 acres
- 200 Fellows Road (T.A. #140.04-1-4): ±30.88 acres
- Fellows Road (T.A. #140.04-1-7): ±7.12 acres

Aristo Development, Inc. owns the southernmost parcel at the northeast corner of Fellows Road and Furman Road, known as the Peters property, a single tax parcel totaling  $\pm 32.2$  acres.

• Fellows Road (T.A. #140.04-1-44.1): ±32.19 acres

Pride Mark Homes and Aristo Development will apply and develop their separate projects independent from one another. However, at the request of the Town, the developers have been mutually planning their developments to allow for these adjoining properties to be planned via a wholistic approach for access, street layout, utility routes, and adjoining land uses between their two proposed developments. Additionally, the two applications are provided to the Town of Perinton at the same time to allow the Town to consider the merits of rezoning of this Fellows Road corridor and SEQR considerations.

This corridor of the proposed PDD is designated within the 2021 Town of Perinton Comprehensive Plan's Future Land Use goals as a Medium Density Residential use area. The proposed PDD seeks to satisfy this stated goal by building a diverse mix of medium density housing in this corridor. As such, the proposed medium density PDD complies with the Comprehensive Plan goals. In addition, it is worth noting that the subject parcels represent the totality of the tax parcels referenced in the Comprehensive Plan for consideration for Medium Density Residential development in this area of the Town.

The 2021 Comprehensive Plan Update identifies that the Town is facing a residential housing shortage:

# Comprehensive Plan, page 14 (Demographics):

"Overall, the housing market in Perinton is facing a shortage, where high occupancy rates and a limited supply keep housing costs high and act as a barrier to entry for younger families and those on a fixed income. Introducing multifamily units into the market would help expand and diversify supply by creating new housing types and price range options that can appeal to a broader range of potential residents."

# Comprehensive Plan, page 14 (Key Findings):

"Recent residential construction trends in Perinton show increasing construction of Ranch style houses and Townhomes. These options appeal to older residents who are looking to downsize and may also help to retain and attract new families and younger homeowners and renters."

# Comprehensive Plan, page 14 (Key Findings):

"The Town should continue to diversify its housing stock to ensure that Perinton is a livable community for all."

This application presents how the proposed PDD meets several of the goals identified in the Comprehensive Plan for the Town of Perinton. This application also identifies how the proposed PDD strictly adheres to the Future Land Use Plan recommendations identified within the Comprehensive Plan for the subject properties to be developed as a Medium Density Residential community.

# II. Existing Conditions/Description of Site

As mentioned above, the Fellows Road Properties represent five (5) individual parcels totaling ±95.3 acres, which are located along the east side of Fellows Road and along the north side of Furman Road. All of the parcels represent vacant, dormant properties which are currently zoned Residential Transition RT-1.2.5, which allows for residential single-family residential lots with a minimum area of 1.0 acres. The vacant lots contain wooded areas, open meadow areas, and steep slope LDD and wetland LDD areas. The proposed PDD will utilize cluster design principles to avoid the mapped LDD areas to the maximum extent practicable.

# III. Description of Proposed Project

The proposed PDD shows 228 residential units via a mixture of single-family homes, patio homes, townhomes and condominium units. The proposed overall density of the PDD is 2.39 units/acre, which is well within the accepted density limits for a Medium Density Residential, which as stated above, is the Comprehensive Plan's recommendation for the future land use of the subject parcels. An overall density of 2.39 units/acre is comparable to the density in the Residential B zoned development that is located in close proximity to the subject parcels, such as the Cambridge Court townhome development off Fellows Road to the south.

Refer to Section III.B. below for a breakdown of the proposed units and market demographics.

#### A. Appearance/Visibility

The proposed PDD will maintain the existing vegetation buffers along Furman Road and Fellows Road to the maximum extent practicable. For example, Aristo's parcel on Furman Road contains a very large existing wooded/wetland buffer along the property frontage that will be left untouched and therefore will significantly reduce the visibility of the development from Furman Road, and partially from Fellows Road as well. In addition, the layout will preserve the existing road corridors along Fellows and Furman Road, with no rear yard exposure to the two road corridors. The lots along Fellows Road will be consistent with the neighboring properties, current development patterns along the road, and will be similar lot sizes.

Enclosed with this application is a Surrounding Neighborhoods Exhibit which also includes the zoning districts of the surrounding residential neighborhoods. The Surrounding Neighborhoods Exhibit shows that the scale of the proposed PDD is not out of context with the surrounding residential neighborhoods which include the townhomes off Whitney Road. As such, the scale of the proposed PDD has been designed to be consistent with the neighboring Residential B zoning densities.

Also enclosed with this application are Aristo and Pride Mark Exhibits describing the design of the residential units, demographic breakdown, amenities, and other related information specific to each project (hereinafter, Aristo Exhibit and Pride Mark Exhibit).

#### **B.** Unit Breakdown/Market Demographics

The proposed unit breakdown between the Pride Mark Homes portion and the Aristo portion of the Fellows Road Properties is as follows:

#### Pride Mark Homes parcels (±63.1 acres):

26 Single-family homes

55 Patio homes

90 Townhome units

= 171 total residential units @ 2.71 units/acre

#### Aristo parcel (±32.2 acres):

10 Single-family homes

19 Patio homes

28 Condominium units

= 57 total residential units @ 1.77 units/acre

# C. Amenities

The proposed development will be served internally via a public concrete sidewalk system to allow for pedestrian use and serve as an active amenity available for use by the residents of the community.

For project specific amenities, please reference the Aristo and Pride Mark Exhibits.

# **D.** Access & Parking

Access to the Fellows Road Properties will be provided via one (1) access off Furman Road from the south and one (1) access point off Fellows Road from the west. Both access points to the development are proposed to be public roadways which will be designed per Town development standards and offered in dedication to the Town of Perinton. The Pride Mark portion of the development is proposed to be served entirely by public roadways, while the Aristo portion of the development is proposed to be served by a public road and also a combination of private roads and private driveways serving patio home lots and the condominium structures. The Aristo condominium structures will include a combination of internal garage parking spaces as well as exterior parking spaces to meet the needs of the residents and their guests. All exterior parking spaces will meet the requirements of §208-16 "Off-street parking and loading" of the Town Code.

A Traffic Impact Report has been completed for the proposed PDD. The Traffic Impact Report has been provided to the Town under separate cover.

# E. Utilities

The proposed PDD will be served by public water provided by the Monroe County Water Authority (MCWA). The properties will be served via a looped public watermain system with one (1) connection proposed to the existing 12" MCWA watermain located along Furman Road and one (1) connection proposed to the existing 8" MCWA watermain located along Fellows Road.

The proposed PDD will be served via public sanitary sewers to be offered into dedication to the Town of Perinton via an internal 8" PVC gravity sanitary sewer system with a proposed connection to the existing Town of Perinton sanitary pump station located along the north side of Furman Road.

The proposed PDD will be served by the Fairport Municipal Commission (electric) and Rochester Gas & Electric (gas).

The subject parcels were designated for Medium Density given the infrastructure that is already in place, including sewer and water. It should be noted that the proposed PDD does not require an extension of infrastructure, nor will it encourage future spread of the infrastructure.

# F. Drainage and Stormwater Management

Stormwater runoff will be analyzed as part of a comprehensive stormwater management plan that will be developed per the Town of Perinton Code Design and Construction Standards and the regulations set forth by the New York State Department of Environmental Conservation (NYSDEC) and its SPDES General Permit GP-0-20-001. Stormwater management facilities will be designed and constructed on-site to provide the required water quality and water quantity volumes and to discharge the post-development runoff at peak runoff rates below the pre-development peak runoff rates as required per Town Code and NYSDEC guidelines.

The proposed PDD will also include runoff reduction volume (RRv) or "green infrastructure" design elements to treat the first-flush or 1" rain event. It is anticipated that bio-retention area(s) and disconnection of rooftops will be utilized to provide the required green infrastructure water quality volume & RRv requirements. The final design will include calculations and a detailed analysis of the stormwater management design.

#### G. Easements

The proposed sanitary sewer system and storm sewer system will be offered in dedication to the Town of Perinton. Easements will be provided as necessary for the sanitary sewer and storm sewer alignments. Easements will also be provided to the Town for the proposed stormwater management areas.

#### H. Recreation/Open Space

As mentioned above, the proposed development will be served internally via a public concrete sidewalk system to allow for pedestrian use and serve as an active amenity available for use by the residents of the community.

The PDD has been designed to avoid the existing LDD/wetland areas to the maximum extent practicable. Open space areas are proposed to protect the LDD/wetland areas, which in turn preserve the natural habitat and wildlife

corridors. The use of open space areas is also a common clustering technique which places the residential lots on lands suitable for development. The use of open space creates internal buffers between the residential neighborhoods. The proposed open space areas also preserve the existing natural road corridors along Furman Road and Fellows Road. The proposed development along Fellows Road will mimic the existing frontage development of similar size lots, with no rear yard exposure being proposed to Fellows Road or Furman Road.

For project specific amenities, please reference the Aristo and Pride Mark Exhibits.

# IV. PDD Code Requirement Analysis

# A. Intent

Town Code §208-52.A(1): "The intent of this district is to permit the development of land for specialized purposes where tracts of land suitable in location, area and character for the uses and structures proposed are to be planned and developed on a unified basis. Suitability of land proposed for such development shall be guided by the Comprehensive Plan, other plans and official policies used to guide development in the Town, and the existing and prospective character of surrounding land uses. The application of a planned development district shall result in development with certain advantages over that which would be obtained under conventional zoning; result in the preservation and enhancement of the natural, cultural or historic features of the site; result in land uses and physical site arrangements which are not contemplated under conventional zoning but which would further the development goals of the Town; reduce improvement costs through more efficient arrangement of varied land uses, buildings, circulation systems and infrastructure; and result in the promotion of the general health, safety and welfare of the Town."

The proposed PDD meets the Future Land Use Plan (FLUP) recommendation within the Town's Comprehensives Plan for the Fellows Road Properties to be developed with Medium Density Residential uses. This proposal includes a walkable community with a desirable mixture of unit sizes and price points, consisting of single-family homes, patio homes, townhomes, and condo units. Comprehensive Plan, page 53 (Medium Density Residential):

"Over the past twenty years, the Town of Perinton has experienced an increase in demand for multi-family and higher density residential development. This was driven by several market forces including the increasing cost of land, a growing need for affordable family and senior housing options, the impacts of the Great Recession (2007 - 2009) on access to mortgages and consumer desire for lower maintenance living."

*"Future development should consist of well-designed, walkable apartment communities, patio homes and townhomes within close proximity to services."* 

# **B.** Permitted Uses

<u>Town Code §208-52.B(1)</u>: "Residential uses. In developing a balanced community, the use of a variety of housing types and densities shall be deemed most in keeping with this article."

The proposed PDD satisfies both the Town's need for additional housing types per this requirement and provides the recommended density as identified in the Comprehensive Plan for the subject parcels.

# C. Basic Requirements

<u>Town Code §208-52.C(3)</u>: "The site shall be suitable for development in the manner proposed without hazards to persons or property, on or off the site, from probability of flooding, erosion, subsidence or slipping of the soil or other dangers, annoyances or inconveniences. Soil conditions, groundwater level, drainage and topography and other factors shall all be appropriate to support both the kind and pattern of the intended use."

The Fellows Road Properties are suitable for development in the manner proposed without hazards to persons or property. The NYSDEC EAF Mapper does not identify any floodplains or floodways on the subject properties. The majority of the site contains gentle slopes and preliminary soil testing indicates that the property is suitable for development in areas outside of the mapped steep slope LLD areas and wetland LDD areas. The development will be designed to avoid the mapped LDD areas to the maximum extent practicable.

<u>Town Code §208-52.C(5)</u>: "The appropriate types of uses within the Planned Development District shall be guided by the Comprehensive Plan goals and objectives."</u>

The proposed PDD meets the Future Land Use Plan (FLUP) recommendation within the Town's Comprehensives Plan for the Fellows Road Properties to be developed with Medium Density Residential uses. This proposal includes a walkable community with a desirable mixture of unit sizes and price points, consisting of single-family homes, patio homes, townhomes, and condo units.

# **D.** Design Standards

<u>Town Code §208-52.D(1)</u>: "The Town of Perinton Design Criteria and Construction Specifications for land development are adopted herein by reference, and shall establish the standard for project design and construction as appropriate."

The proposed PDD will comply with the Town of Perinton Design Criteria and Construction Specifications for land development.

<u>Town Code §208-52.D(2)</u>: "Tract perimeter standards. All dimensional requirements of conventional zoning districts shall apply to the perimeter of planned development projects on the sides where said planned development project abuts a conventional zoning district; these shall include setbacks and buffering requirements."

The proposed PDD proposes setbacks which maintains the tract perimeter standards of the current conventional zoning district (RT-1.2.5) for the adjoining properties to the north and east. There are no buffer requirements within the underlying zoning district.

<u>Town Code §208-52.D(3)(a)</u>: "Maximum building coverage shall not exceed 35% of the total site or parcel area."

The proposed building coverage of  $\pm 5\%$  is well below the 35% threshold of the total site as identified in the Town Code.

<u>Town Code §208-52.D(3)(b)</u>: "Maximum coverage by all buildings, structures, parking areas and impervious surfaces shall not exceed 65% of the total site or parcel area."

The proposed impervious surface coverage of  $\pm 20\%$  is well below the 65% threshold of the total site as identified in the Town Code.

<u>Town Code §208-52.D(3)(c)</u>: "Maximum building height shall be 40 feet, unless the Town Board finds that some greater height is reasonable and appropriate given the location of the development, the terrain involved and the nature of the development."

The maximum building height for all proposed residential structures will be less than the 40' threshold as identified in the Town Code.

Town Code §208-52.D(3)(d): "Setbacks from public rights-of-way, private drives, structures and interior lot lines, etc., shall be proposed by the designer. The Town Board shall approve such setbacks, and these shall become binding upon the district."

See Section V below for the proposed lot standards.

<u>Town Code §208-52.D(4)</u>: "Standards for off-street parking, loading and signs for planned development district uses shall be guided by those for equivalent or similar uses in conventional zoning districts, but may be modified to better achieve site development objectives, during the site plan and subdivision approval process. If the designer proposes a variation from these conventional standards, they shall be presented as part of the district and approved by the Town Board."

All proposed exterior parking spaces and their associated signage will meet the requirements of §208-16 "Off-street parking and loading" of the Town Code.

# **E.** Application Procedure

<u>Town Code §208-52.E(1)(a)[2][a]</u>: "Location and extent of all proposed land uses, with areas in acres, as well as any proposed open space, including the development guidelines proposed for setbacks, building size, lot coverage, parking, impervious surfaces and other similar land use restrictions found within the Zoning Code."

See the enclosed PDD rezoning concept plans for the information listed above.

The proposed development guidelines and lot standards are listed below in Section V.

<u>Town Code §208-52.E(1)(a)[2][b]</u>: "All interior streets, roads, easements and their planned public or private ownership, as well as all points of ingress and egress from existing public rights-of-way."

See the enclosed PDD rezoning concept plans for the information listed above.

<u>Town Code §208-52.E(1)(a)[2][c]</u>: "An area map showing the applicant's entire holdings and adjacent properties; that portion of the applicant's property under consideration; all properties, subdivisions, streets, easements, watercourses, LDD and other significant natural and built features within 500 feet of the applicant's property; and all uses and zoning of abutting lands."

See the enclosed PDD rezoning concept plans and surrounding area map for the information listed above.

<u>Town Code §208-52.E(1)(a)[2][d]</u>: "If residential in nature, description of the number of residential units, their dwelling type, number of stories, the overall architectural style and the overall density of the proposal. If nonresidential in nature, the number of stories, the range of building footprints, the total impervious surface, the architectural style and guidelines and the overall density of the proposal."

See Section III.B, above.

<u>Town Code §208-52.E(1)(a)[2][e]</u>: "The area water and sanitary sewer systems with proposed points of attachment to existing systems; the proposed stormwater drainage system and its relation to existing systems."

See Section III.E and Section III.F, above for a description of the proposed utilities & drainage and stormwater management design.

Town Code §208-52.E(1)(a)[2][f]: "Description of the manner in which any common areas that are not to become publicly owned are to be maintained, including open space, streets, lighting and other considerations relevant to the proposal."

The lands and amenities provided around the proposed townhome units and condominium structures will be owned and maintained by a Homeowners Association (HOA) or a Condominium Owners Association (COA) accordingly.

<u>Town Code §208-52.E(1)(a)[2][g]</u>: "If the development is to be phased, a description and graphic representation of the phasing of the entire proposal in terms of length of time, type and number of units or activities completed per phase."

The Pride Mark Homes parcels and Aristo Development parcel will ultimately be phased separately and developed independently from one another. The final phasing within each developers' respective parcels of land is yet to be determined and will be provided as part of the future site plan applications.

<u>Town Code §208-52.E(1)(a)[2][h]</u>: "A description of any covenants, easements, restrictions proposed to be imposed upon the use of the land, buildings or structures, including proposed easements for public utilities."

No covenants, easements or other restrictions are proposed at this time, other than the typical easements required by the Town (i.e. utility & drainage, etc.). <u>Town Code §208-52.E(1)(a)[2][i]</u>: "A written statement by the applicant setting forth the reasons why, in his or her opinion, the proposal would be in the public interest and would be consistent with the Town's goals and objectives."

The proposed residential PDD development meets several goals and objectives of the Town's Comprehensive Plan; thus, highlighting how the proposal is in the public interest.

<u>Comprehensive Plan, page 66 (Policy Area #1 Land Use/Community Character)</u>: <u>Goal #1</u>: "Protect the long-term viability of residential areas in the Town."

This proposal addresses the need for new residential housing options. It allows for current residents to stay within the community they currently reside in, while also providing attractive housing options for potential residents seeking to relocate to the area. The property is currently zoned residential, and the surrounding area's predominate use is residential.

# <u>Goal #2</u>: "Encourage the development of a range of housing types enhancing access and choice to support a diverse and inclusive population."

This proposal meets this goal by providing a mixture of residential units of various uses, sizes and price points in a single area, thus providing variety in the planned neighborhood. The current availability of housing options in the Town of Perinton is minimal.

# Comprehensive Plan, page 66 (Encouraging Mixed-Use Development within the Town):

"Market forces continue to drive demand for residential and supportive commercial uses. Accommodating future development will require greater focus on design since the majority of growth will likely be in the form of infill development and redevelopment. There is a distinct opportunity to create more compact, walkable mixed-use areas, similar to a village-style aesthetic."

"Through public engagement, it was apparent Perinton residents would like to see more diverse housing options at smaller scale and a range of price points. Ensuring land use regulations allow for, and facilitate, these types of housing products should be prioritized moving forward." The proposed PDD meets the Comprehensive Plan's recommendation for the subject parcels to consist of Medium Density Residential use. This application includes a mix of units, on smaller lots and offers detached units, attached units and condominium style living opportunities.

# Comprehensive Plan, page 82 (Policy Area #4 Environmental Stability):

<u>Goal # 3</u>: "Continue to review the Town's zoning code and site plan review process to ensure regulations consider best practice standards to reduce stormwater runoff and erosion control."

This proposal meets this goal as the project will be designed to meet the NYSDEC Stormwater Management Design Manual Guidelines as well as the Town of Perinton's Design and Construction Standards. By adhering to the NYSDEC and Town of Perinton development guidelines, the project is poised to manage the post-development stormwater runoff condition and control erosion during construction by utilizing accepted Best Management Practices.

# V. <u>Requested Area/Design Standards</u>

See enclosed PDD rezoning concept plan for requested lot standards for the various residential uses proposed.

# VI. <u>Conclusion</u>

As described in this narrative, the proposed PDD meets several of the goals identified in the Comprehensive Plan for the Town of Perinton. This application also identifies how the proposed PDD strictly adheres to the Future Land Use Plan identified within the Comprehensive Plan, which specifically recommends that the subject properties be developed as a Medium Density Residential community. The proposed density within the development is also consistent with the surrounding Residential B neighborhoods.



**TOWN OF PERINTON** 1350 TURK HILL ROAD. FAIRPORT, NEW YORK 14450-8796 (585) 223-0770, Fax: (585) 223-3629, www.perinton.org

# **Owner Authorization to Make Application**

E. William Metrose	9					
I,						
(print owner name legibly)						
BME Associates and Pride Mark Homes						
(applicant/engineer name & company name)						
to act as my agent to make application(s) to the Town of Perinton for the purpose of						
Resubdivision, subdivision & site plan						
(site plan/subdivision/change of use, etc.)						
for the properties that I own located at _	200 Fellows Road (T.A. #140.04-1-4) Fellows Road (T.A. #140.04-1-7)					

EWillimMilo

Signature

2/7/2024

Date

form date - 3/29/12



# The Homes

# **Ranch Townhomes**

- 3 Townhomes per building.
- Square Footage from 1500 sf 1900 sf.
- Anticipated starting price in the low \$400's.
- Lawn, landscape, and townhome exterior maintained through HOA.

# Ranch and Two-story Townhomes

- 4 Townhomes per building.
- Square Footage from 1200 sf 2000 sf.
- Anticipated starting price in the upper \$300's.
- New concept designed to meet a more affordable price in current new construction market.
- Lawn, landscape, and townhome exterior maintained through HOA.

# Patio Homes

- Lot sizes: approx. 60' wide x 140' deep
- Will offer ranch and two-story home designs.
- Square Footage from 1600 sf 2200 sf
- Anticipated starting price in the mid \$400's.

# Single-Family Homes

- Lot sizes: approx. 80' wide x 150' deep
- Will offer ranch and two-story home designs.
- Approximately 2000 3400 square feet
- Anticipated starting price in the mid \$500's.

# The Site

- Internal sidewalk network
- Dedicated town roads
- Streetlights
- Street trees and landscape areas

# The Environment

- Minimize disturbance of environmentally sensitive areas and wetlands.
- Creation of multiple stormwater management ponds to improve current drainage and runoff conditions.
- Planting of many additional deciduous and evergreen trees.

# Full Environmental Assessment Form Part 1 - Project and Setting

# **Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

#### A. Project and Applicant/Sponsor Information.

Name of Action or Project:

Fellows Road Properties

Project Location (describe, and attach a general location map):

East side of Fellows Road & North side of Furman Road. See attached location map.

Brief Description of Proposed Action (include purpose or need):

The proposed action is for a rezoning application for two separate residential developments proposed for the Fellows Road corridor, north of Furman Road in the Town of Perinton. The two applicants, Pride Mark Homes and Aristo Properties, Inc. are requesting the rezoning of lands from Residential Transition (RT-1.2.5) to Residential Planned Development District (PDD) under Town Code §208-52. For the purpose of rezoning and SEQRA review, the EAF has been combined for the two separate proposed developments.

The Pride Mark Homes proposal (on 4 parcels of land) consists of 171 total residential units, including 55 patio homes, 26 single-family homes, and 90 townhome units on ±63.1 acres. The Aristo Properties proposal (on 1 parcel of land) consists of 57 total residential units, including 19 patio homes, 10 single-family homes, and 28 condominium units on ±32.2 acres.

Name of Applicant/Sponsor:	Telephone: (1) 585-249-8182, (2) 585-223-2550		
(1) Pride Mark Homes & (2) Aristo Properties, Inc.	E-Mail: jpbarbato@pmhomes.com, stacey@aristo.		
Address: (1) 1501 Pittsford-Victor Road, Suite 200 (2) 339 Hogan Road			
City/PO: (1) Victor 14564 (2) Fairport 14450	State: NY	Zip Code: See Left	
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:		
Address:			
City/PO:	State:	Zip Code:	
Property Owner (if not same as sponsor):	Telephone: E-Mail:		
Address:			
City/PO:	State:	Zip Code:	

# **B.** Government Approvals

B. Government Approvals, Funding, or Sponsorship.	("Funding"	' includes grants,	loans, t	ax relief, and	d any other	forms	of financial
assistance.)							

<b>Government Entity</b>	If Yes: Identify Agency and Approval(s) Required					
	Kequireu	(Actual or projected)				
a. City Counsel, Town Board,  ✓Yes□No or Village Board of Trustees	Perinton Town Board: Rezoning	February 2024				
b. City, Town or Village	Perinton Planning Board: Subdivision & Site Plan Approval	Spring 2024				
c. City, Town or ☐Yes☐No Village Zoning Board of Appeals						
d. Other local agencies □Yes□No						
e. County agencies	MCWA: Watermain, MCPW: Sanitary, MCDOH: Water/Sanitary, MCPD: County Planning Referral	Spring 2024				
f. Regional agencies						
g. State agencies	NYSDEC: Water quality certification-wetland crossings, NYSDOT: Highway Improvements	Spring 2024				
h. Federal agencies	USACE: Nationwide Permit-wetland crossings	Spring 2024				
i. Coastal Resources.						
<i>i</i> . Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? $\Box$ Yes $\blacksquare$ No						
<i>ii.</i> Is the project site located in a community with an approved Local Waterfront Revitalization Program?						

# C. Planning and Zoning

C.1. Planning and zoning actions.	
<ul> <li>Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?</li> <li>If Yes, complete sections C, F and G.</li> <li>If No, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	☐ Yes <b>Z</b> No
C.2. Adopted land use plans.	
a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located?	<b>∠</b> Yes <b>□</b> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<b>ℤ</b> Yes <b>□</b> No
<ul> <li>b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?)</li> </ul>	<b>⊿</b> Yes <b>□</b> No
If Yes, identify the plan(s): NYS Heritage Areas:West Erie Canal Corridor	
<ul> <li>c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan?</li> <li>If Yes, identify the plan(s):</li> </ul>	∐Yes <b>∏</b> No

C.3. Zoning	
<ul> <li>a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.</li> <li>If Yes, what is the zoning classification(s) including any applicable overlay district?</li> </ul>	☑ Yes □ No
b. Is the use permitted or allowed by a special or conditional use permit?	☐ Yes <b>∑</b> No
<ul> <li>c. Is a zoning change requested as part of the proposed action?</li> <li>If Yes,</li> <li><i>i</i>. What is the proposed new zoning for the site? Planned Development District PDD</li> </ul>	☑ Yes □ No
C.4. Existing community services.	
a. In what school district is the project site located?	
b. What police or other public protection forces serve the project site? Monroe County Sheriff	
c. Which fire protection and emergency medical services serve the project site? Fairport Fire Department, Perinton Ambulance	
d. What parks serve the project site? Fellows Road Park	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mic components)? Residential	ixed, include all

b. a. Total acreage of the site of the proposed action?	±95.3 acres					
b. Total acreage to be physically disturbed?	±67.8 acres					
c. Total acreage (project site and any contiguous properties) owned						
or controlled by the applicant or project sponsor?	±95.3 acres					
c. Is the proposed action an expansion of an existing project or use?		Yes No				
<i>i</i> . If Yes, what is the approximate percentage of the proposed expansion	and identify the units (e.g. acres mile					
square feet)? % Units:	and identify the units (e.g., deres, nine	indusing units,				
d. Is the proposed action a subdivision, or does it include a subdivision?		<b>V</b> Yes <b>N</b> o				
If Yes,						
<i>i</i> . Purpose or type of subdivision? (e.g., residential, industrial, commerci	al; if mixed, specify types)					
Residential						
<i>ii.</i> Is a cluster/conservation layout proposed?		<b>✓</b> Yes <b>□</b> No				
<i>iii</i> . Number of lots proposed?228						
<i>iv.</i> Minimum and maximum proposed lot sizes? Minimum1,650 S.F	Maximum _ 37,500 S.F					
e. Will the proposed action be constructed in multiple phases?		<b>∠</b> Yes <b>N</b> o				
<i>i</i> . If No, anticipated period of construction:	months					
<i>ii</i> . If Yes:						
• Total number of phases anticipated	TBD					
• Anticipated commencement date of phase 1 (including demolition	$(m) \qquad 3 month \ 2025 year$					
Anticipated completion date of final phase     12 month 2030 year						
• Generally describe connections or relationships among phases, in	cluding any contingencies where prog	ress of one phase may				
determine timing or duration of future phases:						
Utility extensions will be provided with each successive building phase.						

	ct include new resid				<b>⊿</b> Yes <b>□</b> No
If Yes, show nun	nbers of units propo		Thuse Femily	Multiple Family (four or more)	
	One Family	<u>Two Family</u>	Three Family	Multiple Family (four or more)	
Initial Phase	TBD	N/A	TBD	TBD	
At completion of all phases	110	N/A	42	76	
or an phases					
	osed action include	new non-residentia	al construction (inclu	ding expansions)?	□Yes <b>☑</b> No
If Yes,	<u>C</u>				
<i>i</i> . Total number	(in feet) of largest r	roposed structure	height	width; andlength	
<i>iii.</i> Approximate	e extent of building	space to be heated	or cooled:	square feet	
	-	-		result in the impoundment of any	<b>✓</b> Yes <b>□</b> No
				goon or other storage?	
If Yes,					
	e impoundment: <u>S</u>				
<i>ii</i> . If a water imp Surface stormy	oundment, the prin	icipal source of the	water:	Ground water Surface water stream	ms Other specify:
		vpe of impounded/	contained liquids and	their source.	
N/A	-		-		
iv. Approximate	size of the propose	ed impoundment.	Volume:	TBD million gallons; surface area:	TBD acres
v. Dimensions of	of the proposed dan	n or impounding str	ructure: TBE	height; <u>TBD</u> length	
	method/materials	for the proposed da	im or impounding str	ucture (e.g., earth fill, rock, wood, con-	crete):
_Earth Fill					
D.2. Project Op	erations				
a. Does the prope	osed action include	any excavation, m	ining, or dredging, du	uring construction, operations, or both?	Yes <b>V</b> No
				or foundations where all excavated	
materials will	remain onsite)				
If Yes:	6.1				
-	urpose of the excav			be removed from the site?	
			s, etc.) is proposed it		
	hat duration of time				
			e excavated or dredg	ed, and plans to use, manage or dispos	e of them.
iv Will there be	onsite devetering	or processing of a	acavated materials?		Yes No
If ves, descri	ibe.	of processing of es			
v. What is the to	otal area to be dredg	ged or excavated?		acres	
vi. What is the n	naximum area to be	worked at any one	e time?	acres	
			or dredging?	feet	
	avation require blas				Yes No
	te reclamation goan				
b. Would the pro	posed action cause	or result in alterati	on of, increase or dec	crease in size of, or encroachment	✓ Yes No
	ing wetland, waterb	ody, shoreline, bea	hch or adjacent area?		
If Yes:		1	CC + 1 (1	· · · · · · · · · · · · · · · · · · ·	1.1
	Proposed creek cre	•		vater index number, wetland map numb	
description).		ussings tor roads and			

<i>ii.</i> Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of st alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square fee	
Fill associated with the proposed creek crossings as required for roads and utilities.	t of acres.
<i>iii.</i> Will the proposed action cause or result in disturbance to bottom sediments? If Yes, describe:	∐Yes <b>⊠</b> No
<i>iv.</i> Will the proposed action cause or result in the destruction or removal of aquatic vegetation? If Yes:	☐ Yes <b>∑</b> No
• acres of aquatic vegetation proposed to be removed:	
expected acreage of aquatic vegetation remaining after project completion:	
purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
Work to be completed per USACE Nationwide Permit (NWP) 29 for residential stream crossings.	
c. Will the proposed action use, or create a new demand for water?	✓Yes □No
If Yes:	
<i>i.</i> Total anticipated water usage/demand per day: <u>71,555</u> gallons/day <i>ii.</i> Will the proposed action obtain water from an existing public water supply?	<b>√</b> Yes <b>□</b> No
If Yes:	
Name of district or service area: Monroe County Water Authority	
• Does the existing public water supply have capacity to serve the proposal?	<b>✓</b> Yes <b>□</b> No
• Is the project site in the existing district?	✓ Yes  No
• Is expansion of the district needed?	🗌 Yes 🔽 No
• Do existing lines serve the project site?	✔ Yes□ No
<i>iii.</i> Will line extension within an existing district be necessary to supply the project? If Yes:	<b>✓</b> Yes <b>□</b> No
Describe extensions or capacity expansions proposed to serve this project:	
Watermain extensions/connections will be incorporated from existing MCWA watermains located along Fellows Road ar	d Furman Road
Source(s) of supply for the district: Monroe County Water Authority	
<i>iv.</i> Is a new water supply district or service area proposed to be formed to serve the project site? If, Yes:	☐ Yes <b>∑</b> No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
<i>v</i> . If a public water supply will not be used, describe plans to provide water supply for the project:	
<i>vi</i> . If water supply will be from wells (public or private), what is the maximum pumping capacity: gallons	/minute.
d. Will the proposed action generate liquid wastes?	☑ Yes □No
If Yes:	
<i>i</i> . Total anticipated liquid waste generation per day: <u>71,555</u> gallons/day <i>ii</i> . Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all compo	
approximate volumes or proportions of each):	
Sanitary wastewater	
<i>iii.</i> Will the proposed action use any existing public wastewater treatment facilities? If Yes:	<b>√</b> Yes <b>N</b> o
Name of wastewater treatment plant to be used: <u>Frank E. VanLare Wastewater Treatment Facility</u>	
Name of district: Perinton Consolidated Sewer District & Irondequoit Bay Pure Waters District	
• Does the existing wastewater treatment plant have capacity to serve the project?	<b>√</b> Yes <b>□</b> No
• Is the project site in the existing district?	<b>∑</b> Yes <b>□</b> No
• Is expansion of the district needed?	☐ Yes <b>⁄</b> No

• Do existing sewer lines serve the project site?	<b>∠</b> Yes <b>N</b> o
• Will a line extension within an existing district be necessary to serve the project?	<b>∠</b> Yes <b>□</b> No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
Proposed gravity sanitary sewer mains will be extended to serve the property, with a connection to the existing Town pump station located on Furman Road.	of Perinton sanitary
<i>iv.</i> Will a new wastewater (sewage) treatment district be formed to serve the project site?	☐ Yes <b>Z</b> No
If Yes:	I I CS MINO
<ul> <li>Applicant/sponsor for new district:</li> <li>Date application submitted or anticipated:</li> </ul>	
<ul> <li>What is the receiving water for the wastewater discharge?</li> </ul>	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including sp	ecifying proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	
<i>vi</i> . Describe any plans or designs to capture, recycle or reuse liquid waste:	
<i>n</i> . Describe any plans of designs to capture, recycle of reuse inquid waste.	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point	<b>V</b> Yes No
sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
<i>i</i> . How much impervious surface will the project create in relation to total size of project parcel?	
Square feet or $\pm 19.1$ acres (impervious surface)	
Square feet or $\pm 95.3$ acres (parcel size)	
<i>ii</i> . Describe types of new point sources. Surface runoff from proposed paved driveways, paved roadways and rooftops.	
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacen	t properties
groundwater, on-site surface water or off-site surface waters)?	r properties,
On-site stormwater management facilities.	
If to surface waters, identify receiving water bodies or wetlands:	
Will stormwater runoff flow to adjacent properties?	<b>∠</b> Yes No
<i>iv.</i> Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater	
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	ZYes No
combustion, waste incineration, or other processes or operations?	
If Yes, identify:	
<i>i</i> . Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
Temporary earth moving vehicles on the site during the grading operations/use of delivery vehicles to brings supplies to the	site.
<i>ii.</i> Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
Ν/Α	
<i>iii.</i> Stationary sources during operations (e.g., process emissions, large boilers, electric generation) N/A	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?	□Yes <b>2</b> No
If Yes:	
<i>i</i> . Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
<i>ii.</i> In addition to emissions as calculated in the application, the project will generate:	
• Tons/year (short tons) of Carbon Dioxide (CO <sub>2</sub> )	
<ul> <li>Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)</li> </ul>	
Tons/year (short tons) of Perfluorocarbons (PFCs)	
• Tons/year (short tons) of Sulfur Hexafluoride (SF <sub>6</sub> )	
Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)	
Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	
· · · · · · · · · · · · · · · · ·	

<ul> <li>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?</li> <li>If Yes: <ul> <li><i>i</i>. Estimate methane generation in tons/year (metric):</li> </ul> </li> </ul>	Yes No
<ul> <li><i>ii.</i> Describe any methane capture, control or elimination measures included in project design (e.g., combustion to electricity, flaring):</li> </ul>	
<ul> <li>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?</li> <li>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):</li> </ul>	∐Yes <b>Z</b> No
<ul> <li>j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services?</li> <li>If Yes: <ul> <li><i>i</i>. When is the peak traffic expected (Check all that apply):</li> <li><i>i</i>. When is the peak traffic expected (Check all that apply):</li> <li><i>i</i>. Morning</li> <li><i>i</i>. Evening</li> <li><i>i</i>. Weekend</li> <li><i>i</i>. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump truc</li> </ul> </li> </ul>	
<ul> <li><i>iii.</i> Parking spaces: Existing <u>0</u> Proposed <u>28</u> Net increase/decrease <u>iv.</u> Does the proposed action include any shared use parking?</li> <li><i>v.</i> If the proposed action includes any modification of existing roads, creation of new roads or change in existing <u>lmprovements at Fellows Road/NYS Route 441: see Traffic Impact Study provided under separate cover.</u></li> <li><i>vi.</i> Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?</li> <li><i>vii</i> Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?</li> <li><i>viii.</i> Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?</li> </ul>	28 Yes No g access, describe: Yes No Yes No Yes No
<ul> <li>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?</li> <li>If Yes: <ul> <li><i>i</i>. Estimate annual electricity demand during operation of the proposed action:</li> <li><i>ii</i>. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid other):</li> </ul> </li> </ul>	
<i>iii.</i> Will the proposed action require a new, or an upgrade, to an existing substation?	<b>Yes</b> No
1. Hours of operation. Answer all items which apply.       i. During Construction:       ii. During Operations:         • Monday - Friday:       7:00 am - 5:00 pm (Town Code)       • Monday - Friday:       Residential Use (24 H         • Saturday:       7:00 am - 1:00 pm (Town Code)       • Saturday:       Residential Use (24 H         • Holidays:       N/A       • Holidays:       Residential Use (24 H	nrs/day) nrs/day)

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction,	<b>V</b> Yes	No
operation, or both? If yes:		
<i>i</i> . Provide details including sources, time of day and duration:		
Typical temporary construction equipment activity from construction vehicles, trucks, vibratory equipment, air powered equipme	<u>nt, generat</u>	ors, etc.
Post-construction noise levels are anticipated to be similar to the ambient levels.		1
<i>ii.</i> Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?	□ Yes <b>∠</b>	INO
Describe:	<u> </u>	<u> </u>
n. Will the proposed action have outdoor lighting?	<b>Z</b> Yes	No
If yes:		
<i>i</i> . Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: <u>Street lighting at intersections, onsite parking area/site lighting with dark sky compliant LED fixtures.</u>		
<i>ii.</i> Will proposed action remove existing natural barriers that could act as a light barrier or screen?	<b>∠</b> Yes	]No
Describe: Some areas with trees and brush growth may be removed for development of the proposed lots. The existing perim		
retained in particular at southern and northern limits of the property.	elei vegela	
o. Does the proposed action have the potential to produce odors for more than one hour per day?	□ Yes <b>Z</b>	No
If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest		
occupied structures:		
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons)	□ Yes <b>7</b>	1No
or chemical products 185 gallons in above ground storage or any amount in underground storage?		1110
If Yes:		
<i>i</i> . Product(s) to be stored		
<i>ii</i> . Volume(s) per unit time (e.g., month, year)		
<i>iii.</i> Generally, describe the proposed storage facilities:		
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides,	Yes [	No
insecticides) during construction or operation?		
If Yes: <i>i</i> . Describe proposed treatment(s):		
<i>i</i> . Describe proposed treatment(s):		
<i>ii.</i> Will the proposed action use Integrated Pest Management Practices?	🗌 Yes [	
r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal $\int_{-\infty}^{\infty} \frac{1}{1+1} \frac{1}{1+1$	🗌 Yes [	No
of solid waste (excluding hazardous materials)? If Yes:		
<i>i</i> . Describe any solid waste(s) to be generated during construction or operation of the facility:		
Construction: tons per (unit of time)		
Operation : tons per (unit of time)		
• Operation : tons per (unit of time) <i>ii.</i> Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:		
Construction:		
Operation:		
<i>iii</i> . Proposed disposal methods/facilities for solid waste generated on-site:		
Construction:		
Operation:		

s. Does the proposed action include construction or modification of a solid waste management facility?	🗌 Yes 🖌 No
If Yes:	
<i>i</i> . Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting,	landfill, or
other disposal activities):	
<i>ii.</i> Anticipated rate of disposal/processing:	
• Tons/month, if transfer or other non-combustion/thermal treatment, or	
Tons/hour, if combustion or thermal treatment	
iii. If landfill, anticipated site life: years	
t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardou waste?	s Ves No
If Yes:	
<i>i</i> . Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility:	
<i>ii.</i> Generally describe processes or activities involving hazardous wastes or constituents:	
<i>iii</i> . Specify amount to be handled or generated tons/month	
<i>iv.</i> Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents:	
v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?	Yes No
If Yes: provide name and location of facility:	
If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:	
E. Site and Setting of Proposed Action	
E.1. Land uses on and surrounding the project site	
a. Existing land uses.	
<i>i</i> Check all uses that occur on, adjoining and near the project site.	

*i.* Check all uses that occur on, adjoining a Urban Industrial Commercial

 I near the project site.

 Image: Residential (suburban)

 Image: Residential (suburban)

	010411					00111110
<b>Z</b> 1	Forest	$\checkmark$	Ag	riculture		Aquatic
ii.	If mix	of u	ses,	general	ly de	escribe:

b. Land uses and covertypes on the project site. Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	19.1	19.1
• Forested	51.7	10.2	-41.5
• Meadows, grasslands or brushlands (non- agricultural, including abandoned agricultural)	32.2	4.1	-28.1
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	5.3	5.3
• Wetlands (freshwater or tidal)	11.4	11.4	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
Other     Describe: Lawn/landscaped area	0	45.2	45.2

<ul><li>c. Is the project site presently used by members of the community for public recreation?</li><li><i>i</i>. If Yes: explain:</li></ul>	□Yes☑No
<ul> <li>d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?</li> <li>If Yes, <ul> <li>i. Identify Facilities:</li> </ul> </li> </ul>	∐Yes <b>∑</b> No
<ul> <li>e. Does the project site contain an existing dam?</li> <li>If Yes: <ul> <li><i>i</i>. Dimensions of the dam and impoundment:</li> <li>Dam height:</li> <li>feet</li> </ul> </li> </ul>	☐ Yes <b>[</b> ] No
Dam length:  feet	
Surface area: acres	
Volume impounded:     gallons OR acre-feet	
<i>ii</i> . Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility If Yes:	□Yes <b>\</b> No ility?
<i>i</i> . Has the facility been formally closed?	□Yes□ No
• If yes, cite sources/documentation:	
<i>ii.</i> Describe the location of the project site relative to the boundaries of the solid waste management facility:	
<i>u</i> . Describe the focution of the project site relative to the obtinuaries of the solid waste management facility.	
	· · · · · · · · · · · · · · · · · · ·
<i>iii.</i> Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:	∐Yes <b>⊠</b> No
<i>i</i> . Describe waste(s) handled and waste management activities, including approximate time when activities occur	red:
<ul> <li>h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?</li> <li>If Yes:</li> </ul>	☐Yes  No
<i>i</i> . Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:	□Yes□No
Yes - Spills Incidents database       Provide DEC ID number(s):	
Yes – Environmental Site Remediation database Provide DEC ID number(s):	
Neither database	
<i>ii</i> . If site has been subject of RCRA corrective activities, describe control measures:	
<i>iii.</i> Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s):	□Yes☑No
<i>iv.</i> If yes to (i), (ii) or (iii) above, describe current status of site(s):	

v. Is the project site subject to an institutional control limiting property uses?	☐ Yes <b>☑</b> No
<ul> <li>If yes, DEC site ID number:</li></ul>	
<ul> <li>Describe any use limitations:</li> </ul>	
<ul> <li>Describe any use limitations:</li> <li>Describe any engineering controls:</li> </ul>	
<ul> <li>Will the project affect the institutional or engineering controls in place?</li> <li>Explain:</li></ul>	☐ Yes ☐ No
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? $\geq 12'$ feet	
b. Are there bedrock outcroppings on the project site? If Yes, what proportion of the site is comprised of bedrock outcroppings?%	☐ Yes <b>∕</b> No
	35_%
	$\frac{23}{170}$
	<u>17 %</u>
d. What is the average depth to the water table on the project site? Average: >12' feet	
e. Drainage status of project site soils: Well Drained: 3 % of site	
$\checkmark$ Moderately Well Drained: <u>50</u> % of site	
$\square Poorly Drained \qquad \_47\% of site$	
f. Approximate proportion of proposed action site with slopes: 🗹 0-10%:85 % of site	
$\boxed{\cancel{10-15\%}:} \qquad \underline{10\%} \text{ of site}$ $\boxed{\cancel{10}\%} \text{ of site}$ $\boxed{\cancel{5}\%} \text{ of site}$	
g. Are there any unique geologic features on the project site?	☐ Yes <b>∑</b> No
If Yes, describe:	·····
<ul><li>h. Surface water features.</li><li><i>i</i>. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?</li></ul>	<b>↓</b> Yes <b>□</b> No
<i>ii.</i> Do any wetlands or other waterbodies adjoin the project site?	<b>√</b> Yes No
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	
<i>iii.</i> Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?	<b>✓</b> Yes <b>□</b> No
<ul> <li><i>iv.</i> For each identified regulated wetland and waterbody on the project site, provide the following information</li> <li>Streams: Name <u>846-76</u> Classification <u>B</u></li> </ul>	:
<ul> <li>Lakes or Ponds: Name</li> <li>Wetlands: Name</li> <li>Federal Waters, NYS Wetland, Federal Waters, Fe</li> <li>Classification</li> <li>Approximate Size</li> </ul>	NYS Wetland (in a
<ul> <li>Wetland No. (if regulated by DEC) <u>PR-32</u></li> <li>v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired</li> </ul>	Yes No
waterbodies? If yes, name of impaired water body/bodies and basis for listing as impaired:	
Name - Pollutants - Uses: Thomas Creek/White Brook and tribs – Nutrients – Recreation; Public Bathing; Aquatic Life	
i. Is the project site in a designated Floodway?	∐Yes <b>∑</b> No
j. Is the project site in the 100-year Floodplain?	∐Yes <b>√</b> No
k. Is the project site in the 500-year Floodplain?	☐Yes <b>∑</b> No
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?	<b>✓</b> Yes <b>□</b> No
If Yes: <i>i</i> . Name of aquifer: Principal Aquifer, Primary Aquifer	

<ul> <li>Identify the predominant wildlife species that occupy or use the project s White tail deer</li> </ul>	ite:	
Small mammals		·····
Birds		
n. Does the project site contain a designated significant natural community? If Yes:		Yes <b>V</b> No
<i>i</i> . Describe the habitat/community (composition, function, and basis for des	signation):	
<i>ii.</i> Source(s) of description or evaluation:		
<i>iii</i> . Extent of community/habitat:		
Currently:	acres	
Following completion of project as proposed:		
• Gain or loss (indicate + or -):	acres	
<ul> <li>o. Does project site contain any species of plant or animal that is listed by the endangered or threatened, or does it contain any areas identified as habitat If Yes:</li> <li><i>i.</i> Species and listing (endangered or threatened):</li> </ul>	for an endangered or threatened speci	
p. Does the project site contain any species of plant or animal that is listed b	by NYS as rare, or as a species of	☐ Yes <b>√</b> No
special concern?		
If Yes:		
<i>i</i> . Species and listing:		
	1	
q. Is the project site or adjoining area currently used for hunting, trapping, fis If yes, give a brief description of how the proposed action may affect that use		☐Yes <b>∑</b> No
if yes, give a oner description of now the proposed action may affect that dis		
E.3. Designated Public Resources On or Near Project Site		
a. Is the project site, or any portion of it, located in a designated agricultural	district certified pursuant to	<b>∐</b> Yes <b>∑</b> No
Agriculture and Markets Law, Article 25-AA, Section 303 and 304?		
If Yes, provide county plus district name/number:		
b. Are agricultural lands consisting of highly productive soils present?		<b>∐</b> Yes <b>∑</b> No
<i>i</i> . If Yes: acreage(s) on project site?		
<i>ii.</i> Source(s) of soil rating(s):		
c. Does the project site contain all or part of, or is it substantially contiguous		∐Yes <b>∑</b> No
Natural Landmark? If Yes:		
<i>i</i> . Nature of the natural landmark: Biological Community	Geological Feature	
<i>ii.</i> Provide brief description of landmark, including values behind designation	ion and approximate size/extent:	
1 7 8 8	11	
d. Is the project site located in or does it adjoin a state listed Critical Environ	mental Area?	☐ Yes <b>7</b> No
If Yes:	intental Area:	
<i>i</i> . CEA name:		
<i>ii</i> . Basis for designation:		
iii. Designating agency and date:		·····

<ul> <li>e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commission Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.</li> <li><i>i</i>. Nature of historic/archaeological resource: Archaeological Site Historic Building or District <i>ii</i>. Name:</li> <li><i>iii</i>. Brief description of attributes on which listing is based:</li> </ul>	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	∐Yes <b>Z</b> No
<ul> <li>g. Have additional archaeological or historic site(s) or resources been identified on the project site?</li> <li>If Yes: <ul> <li><i>i</i>. Describe possible resource(s):</li> <li><i>ii</i>. Basis for identification:</li> </ul> </li> </ul>	Yes <b>X</b> No
<ul> <li>h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?</li> <li>If Yes: <ul> <li><i>i</i>. Identify resource:</li> <li><i>ii</i>. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or etc.):</li> </ul> </li> </ul>	☐Yes <b>Ø</b> No scenic byway,
<i>iii.</i> Distance between project and resource: miles.	
<ul> <li>i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?</li> <li>If Yes: <ul> <li><i>i</i>. Identify the name of the river and its designation:</li> </ul> </li> </ul>	☐ Yes <b>∑</b> No
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	□Yes □No

#### **F. Additional Information**

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

#### G. Verification

I certify that the information provided is true to the best of my knowledge.

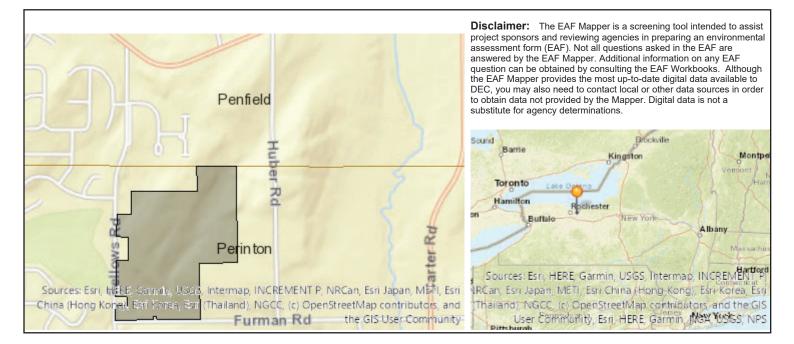
Applicant/Sponsor Name Pride Mark Homes & Aristo Properties, Inc.

Date February 8, 2024

Signature Ryan 7. Duth BME Associates

Title Project Engineer

(Agent for Pride Mark Homes & Aristo Properties, Inc.)



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	846-76
E.2.h.iv [Surface Water Features - Stream Classification]	В
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):42.8
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	PR-32

E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses:Thomas Creek/White Brook and tribs – Nutrients – Recreation;Public Bathing;Aquatic Life
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer, Primary Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

# Full Environmental Assessment FormPart 2 - Identification of Potential Project Impacts

Project : Date :

**Part 2 is to be completed by the lead agency.** Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

# **Tips for completing Part 2:**

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "Yes" to a numbered question, please complete all the questions that follow in that section.
- If you answer "No" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

# 1. Impact on Land

1.	Impact on Land			
	Proposed action may involve construction on, or physical alteration of,	🗆 NO		YES
	the land surface of the proposed site. (See Part 1. D.1)			
	If "Yes", answer questions a - j. If "No", move on to Section 2.			
		Delevent	No or	Madanata

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d		
b. The proposed action may involve construction on slopes of 15% or greater.	E2f		
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a		
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a		
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e		
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q		
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	Bli		
h. Other impacts:			

The proposed action may result in the modification or destruction of, or inhib access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) <i>If "Yes", answer questions a - c. If "No", move on to Section 3.</i>	□ NO		YES
ij ies , unswer questions a c. ij ivo , move on to section 5.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached:	E2g		
<ul> <li>b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark.</li> <li>Specific feature:</li></ul>	E3c		
c. Other impacts:			
<ul> <li>3. Impacts on Surface Water</li> <li>The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)</li> <li>If "Yes", answer questions a - l. If "No", move on to Section 4.</li> </ul>	□ NC		YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h		
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b		
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a		
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h		
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h		
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c		
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d		
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e		
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h		
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h		
k. The proposed action may require the construction of new, or expansion of existing,	D1a, D2d		

1. Other impacts:					
<ul> <li>4. Impact on groundwater The proposed action may result in new or additional use of ground water, or □ NO □ YES may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) If "Yes", answer questions a - h. If "No", move on to Section 5.</li></ul>					
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c				
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source:	D2c				
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c				
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E21				
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h				
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l				
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c				
h. Other impacts:					

<ul> <li>5. Impact on Flooding The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) If "Yes", answer questions a - g. If "No", move on to Section 6. </li> </ul>	□ NO		YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i		
b. The proposed action may result in development within a 100 year floodplain.	E2j		
c. The proposed action may result in development within a 500 year floodplain.	E2k		
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e		
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k		
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e		

g. Other impacts:			
<ul> <li>6. Impacts on Air</li> <li>The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g)</li> <li>If "Yes", answer questions a - f. If "No", move on to Section 7.</li> </ul>	□ NO		YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
<ul> <li>a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: <ol> <li>More than 1000 tons/year of carbon dioxide (CO<sub>2</sub>)</li> <li>More than 3.5 tons/year of nitrous oxide (N<sub>2</sub>O)</li> <li>More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)</li> <li>More than .045 tons/year of sulfur hexafluoride (SF<sub>6</sub>)</li> <li>More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions</li> <li>vi. 43 tons/year or more of methane</li> </ol> </li> </ul>	D2g D2g D2g D2g D2g D2g D2g		
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g		
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g		
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g		
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s		
f. Other impacts:			

<b>Impact on Plants and Animals</b> The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. mq.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		□ NO	□ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o		
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o		
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p		
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p		

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source:	E2n	
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source:	E1b	
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	
j. Other impacts:		

<b>8.</b> Impact on Agricultural Resources The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) If "Yes", answer questions a - h. If "No", move on to Section 9.		□ NO	□ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> </ul>	E2c, E3b		
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb		
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b		
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a		
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b		
<li>f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.</li>	C2c, C3, D2c, D2d		
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c		
h. Other impacts:			

If "Yes", answer questions a - g. If "No", go to Section 10.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b		
<ul><li>c. The proposed action may be visible from publicly accessible vantage points:</li><li>i. Seasonally (e.g., screened by summer foliage, but visible during other seasons)</li><li>ii. Year round</li></ul>	E3h		
<ul><li>d. The situation or activity in which viewers are engaged while viewing the proposed action is:</li><li>i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities</li></ul>	E3h E2q, E1c		
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h		
<ul> <li>f. There are similar projects visible within the following distance of the proposed project:</li> <li>0-1/2 mile</li> <li>½ -3 mile</li> <li>3-5 mile</li> <li>5+ mile</li> </ul>	D1a, E1a, D1f, D1g		
g. Other impacts:			

	Part I Question(s)	small impact	to large impact may
		may occur	occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner	E3e		
of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.			
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source:	E3g		

d. Other impacts:			
If any of the above (a-d) are answered "Moderate to large impact may e. occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f		
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b		
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3		
<ul> <li>11. Impact on Open Space and Recreation The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) If "Yes", answer questions a - e. If "No", go to Section 12.</li></ul>			YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p		
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q		
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q		
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c		
e. Other impacts:			
<ul> <li>12. Impact on Critical Environmental Areas The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) If "Yes", answer questions a - c. If "No", go to Section 13.</li></ul>			YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d		
<ul> <li>a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.</li> <li>b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.</li> </ul>	E3d E3d		

<b>13. Impact on Transportation</b> The proposed action may result in a change to existing transportation systems	. 🗆 N(		YES		
(See Part 1. D.2.j)			115		
If "Yes", answer questions a - f. If "No", go to Section 14.	Relevant Part I Question(s)	No, or small impact	Moderate to large impact may		
a. Projected traffic increase may exceed capacity of existing road network.	D2j	may occur	occur		
<ul><li>b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.</li></ul>	D2j				
c. The proposed action will degrade existing transit access.	D2j				
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j				
e. The proposed action may alter the present pattern of movement of people or goods.	D2j				
f. Other impacts:					
<b>14. Impact on Energy</b> The proposed action may cause an increase in the use of any form of energy. (See Part 1. D.2.k)			YES		
If "Yes", answer questions a - e. If "No", go to Section 15.	Relevant	No, or	Moderate		
	Part I Question(s)	small impact may occur	to large impact may occur		
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k				
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k				
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k				
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g				
e. Other Impacts:					
<b>15. Impact on Noise, Odor, and Light</b> The proposed action may result in an increase in noise, odors, or outdoor lighting. □ NO □ YES (See Part 1. D.2.m., n., and o.) If "Yas" answer quantions a f If "No" as to Section 16					
(See Part 1. D.2.m., n., and o.) If "Yes", answer questions a - f. If "No", go to Section 16.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
	Part I	small impact	to large impact may		
If "Yes", answer questions a - f. If "No", go to Section 16.         a. The proposed action may produce sound above noise levels established by local	Part I Question(s)	small impact may occur	to large impact may occur		

d. The proposed action may result in light shining onto adjoining properties.	D2n	
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	
f. Other impacts:		

<b>16. Impact on Human Health</b> The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. ar <i>If "Yes", answer questions a - m. If "No", go to Section 17.</i>	□ No nd h.)	0 🛛	YES
	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d		
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h		
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h		
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h		
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h		
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t		
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f		
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f		
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s		
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h		
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g		
1. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r		
m. Other impacts:			

17. Consistency with Community Plans			<b>7</b> 50
The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.)	□ NO	ΠY	ES
If "Yes", answer questions a - h. If "No", go to Section 18.			1
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b		
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2		
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3		
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2		
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb		
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j		
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a		
h. Other:			
<ul> <li>18. Consistency with Community Character</li> <li>The proposed project is inconsistent with the existing community character.</li> <li>(See Part 1. C.2, C.3, D.2, E.3)</li> <li>If "Yes", answer questions a - g. If "No", proceed to Part 3.</li> </ul>	□ NO	ΠY	ΈS
If Tes , unswer questions a - g. If No , proceed to Fart 5.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g		occur
b. The proposed action may create a demand for additional community services (e.g.	C4		
schools, police and fire)			
	C2, C3, D1f D1g, E1a		
schools, police and fire)c. The proposed action may displace affordable or low-income housing in an area where	C2, C3, D1f		
<ul> <li>schools, police and fire)</li> <li>c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.</li> <li>d. The proposed action may interfere with the use or enjoyment of officially recognized</li> </ul>	C2, C3, D1f D1g, E1a		
<ul> <li>schools, police and fire)</li> <li>c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.</li> <li>d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.</li> <li>e. The proposed action is inconsistent with the predominant architectural scale and</li> </ul>	C2, C3, D1f D1g, E1a C2, E3		

Project : Date :

# Full Environmental Assessment Form Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

## **Reasons Supporting This Determination:**

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

	Determination	of Significance -	Type 1 and U	nlisted Actions
SEQR Status:	✓ Type 1	Unlisted		
Identify portions of EAF	completed for this Pro	oject: 🖌 Part 1	Part 2	Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information						
and considering both the magnitude and importance of each identified potential impact, it is the conclusion of theas lead agency that:						
A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.						
B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:						
There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).						
C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.						
Name of Action: Fellows Road Properties						
Name of Lead Agency:						
Name of Responsible Officer in Lead Agency:						
Title of Responsible Officer:						
Signature of Responsible Officer in Lead Agency: Date:						
Signature of Preparer (if different from Responsible Officer) Ryan 7. Dector Date: 02/13/2024						
For Further Information:						
Contact Person:						
Address:						
Telephone Number:						
E-mail:						
For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:						
Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of) Other involved agencies (if any) Applicant (if any) Environmental Notice Bulletin: <u>http://www.dec.ny.gov/enb/enb.html</u>						

PRINT FULL FORM

MONROE COUNTY CLERK'S OFFICE

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# MORTGAGE TAX

FILE FEE-S	\$	66.00	MORTGAGE AMOUNT	\$	.00
FILE FEE-C	\$	11.00			
REC FEE	\$	12.00	BASIC MORTGAGE TAX	\$	.00
TRANS TAX	\$	840.00		•	
MISC FEE-C	\$	5.00	SPEC ADDIT MTG TAX	\$	.00
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	\$	.00	Total	\$	.00
Total:	\$	934.00			

STATE OF NEW YORK MONROE COUNTY CLERK'S OFFICE

## TRANSFER AMT

MT :	\$ 210,000.00
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'AX	\$ 840.00
	MT \$ AX \$

Maggie Brooks, County Clerk



Y Deed WARRANTY With Lien Covenant

840.00

, Two Thousand and Three

THIS INDENTURE, Made the 13th day of June, , Two Thousand and Three

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**Between** JOHN M FRITSCH, residing at 250 Fellows Road, Fairport, New York 14450 and JOHANNA M FRITSCH A/K/A JOHANNA FRITSCH, residing at 107 Somershire, Rochester, New York 14617,

Parties of the first part, and

PRIDE MARK HOMES, INC, a New York Corporation with its principal office at 2024 West Henrietta Road, Suite 6D, Rochester, New York 14623, 4

party of the second part,

Witnesseth that the parties of the first part, in consideration of One and 00/100+----------Dollar (\$ 1 00 lawful money of the United States, and other good and ) valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, his heirs, distributees and assigns forever, all

PROPERTY ADDRESS 250 FELLOWS RD FAIR PONT, NY 14150

THAT TRACT OR PARCEL OF LAND, containing 24.1497 acres of land, more or less, situate in Township 12, Range 4, Town Lot 14 in the Town of Perinton, County of Monroe and State of New York, as shown on the drawing entitled "Fritsch Property, Boundary Survey Map, 250 & 258 Fellows Road," prepared by BME Associates, having drawing number 8904-205, being more particularly bounded and described as follows.

Commencing at the point of intersection of the centerline of Furman Road (49 5 feet wide right-of-way) with the centerline of Fellows Road (49.5 feet right-of-way), thence northerly along the centerline of Fellows Road a distance of 1,543 74 feet to a point; thence S84°31'00"E a distance of 24 75 feet to a point on the east right-of-way line of Fellows Road marked by an iron pipe at the intersection of the easterly right-of-way line of Fellows Road (49.5' Right-of-Way) with the southerly boundary line of lands now or formerly of Darlene & Alan Peters (TA No 140 04-01-004), thence

1 S84°31'00" E, along the southerly boundary line of said Peters, a distance of 2,090 98 feet to an iron pipe on the westerly boundary line of lands now or formerly of David & Laura Masterson (TA No 140 04 01-012), thence

2 S04°45'41"W, along said westerly boundary line, a distance of 529.98 feet to a point at the southwest corner thereof Said point also being on the northerly boundary line of lands now or formerly of David & Laura Masterson (TA 140 04-01-038 1); thence

3. N84°30'58"W, along said northerly boundary line, and along the northerly boundary line of lands now or formerly of Warren Peters, et al, (TA 140 04-01-044 1) a distance of 2,105 66 feet to a point on the aforementioned easterly right-of-way line of Fellows Road, thence

4. N06°20'54"E, along said right-of-way line, a distance of 49 63 feet to a point at the southwesterly corner of lands now or formerly of Gregory & Sharon Cole (TA No. 140.04-01-043), thence

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5. S83°39'06"E, along the southerly boundary line of said Cole, a distance of 200 00 feet to a point at the southeasterly corner thereof, thence

6. N06°20'54"E, along the easterly boundary line of said Cole, and along the easterly boundary line of lands now or formerly of Raymond Oldenburg (TA No. 140 04-01-042), and A & E Saltrella Trust (TA No 140 04-01-041), a distance of 300.00 feet to an iron pipe at the northeasterly corner thereof, thence

7 N83°39'06"W, along the northerly boundary line of said Saltrella Trust, a distance of 200 00 feet to an iron pipe in the easterly right-of-way line of said Fellows Road; thence

8. N06°20'54"E, along said right-of-way line, a distance of 180 35 feet to the Point of Beginning.

Also intending to convey any right, title and interest to the centerline of Fellows Road.

Subject to public utility easement and easements, covenants and restrictions of record in the Monroe County Clerk's Office affecting said premises, if any

Being and herein intending to convey the same premises conveyed to Johanna Fritsch by Warranty Deed dated April 5, 1984 and recorded on April 19, 1984 in the Monroe County Clerk's Office in Liber 6507 of Deeds, page 200 and the same premises conveyed to the parties of the first part by Warranty Deed dated April 18, 1996 and recorded on April 19, 1996 in the Monroe County Clerk's Office in Liber 8727 of Deeds, page 523.

Tax Account Numbers	140 04-1-39 & 140 04-1-40
Tax Billing Address .	2024 W Henrietta Road Suite 6D Rochester, New York 14623

Together with the appurtenances and all the estate and rights of the parties of the first part in and to said premises,

To have and to hold the premises herein granted unto the party of the second part, his heirs, distributees and assigns forever,

And said parties of the first part covenants as follows

First, That the party of the second part shall quietly enjoy the said premises,

Second, That said parties of the first part will forever warrant the title to said premises

Third, That, in Compliance with Sec 13 of the Lien Law, the grantors will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose

In Witness Whereof, the parties of the first part has hereunto set their hands and seals the day and year first above written

**IN PRESENCE OF** 

IOHN M ÉRITSCH L.S. JOHANNA M FRITSCH A/K/A JOHANNA FRITSCH State of New York in the **County of Monroe** SS:

before me, the subscriber, personally appeared, JOHN M FRITSCH, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual or the persons upon behalf of which the individual acted, executed the instrument

NOTARY PUBLIC

HERBERT J. LePAGE JR. Notary Public, State of New York Momoe County Reg. # 02LE2314625 My Commission Expires March 30, 20\_\_\_\_

State of New York } County of Monroe } ss:

On the <u>13</u> year 2003 in the

before me, the subscriber, personally appeared, JOHANNA M FRITSCH A/K/A JOHANNA FRITSCH, personally known to me or proved to me on the basis of satisfactory evidence to be the individuals whose names are subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individuals or the persons upon behalf of which the individual acted, executed the instrument.

NOTARY PUBLIC

HERBERT J. LePAGE JR Notary Public, State of New York Monroe County Reg. # 02LE2314625 My Commission Expires March 30, 20 MONROE COUNTY CLERK'S OFFICE

Return To:

DIANE MENDICK 55 SULLYS TRAIL STE A PITTSFORD NY 14534 Index DEEDS
Book 10390 Page 0389
No. Pages 0005
Instrument DEED
Date : 11/30/2006
Time : 4:51:00
Control # 200611301475

PETERS ALAN L		
PETERS	TT#	TT 0000 008536
DARLENE L		
WILLIAM METROSE LTD BUILDER DE	Employee ID	NB40
VELOPER		

MORTGAGE TAX

TRANS TAX	\$	1,440.00	MORTGAGE AMOUNT	\$	.00
FILE FEE-S FILE FEE-C	\$ \$	66.00 9.00	BASIC MORTGAGE TAX	\$	.00
FILE FEE-S FILE FEE-C	\$ \$	19.00 8.00	SPEC ADDIT MTG TAX	\$	00
REC FEE MISC FEE-C	\$ \$	15.00 5.00	ADDITIONAL MTG TAX	Ś	.00
	\$	.00	Total		.00
·	₽	.00	IOLAI	\$	.00
Total:	\$	1,562.00			

STATE OF NEW YORK MONROE COUNTY CLERK'S OFFICE TRANSFER AMT

WARNING - THIS SHEET CONSTITUTES THE CLERKS	TRANSFER AMT \$	360,000.00
ENDORSEMENT, REQUIRED BY SECTION 317-a(5) &		
SECTION 319 OF THE REAL PROPERTY LAW OF THE		
STATE OF NEW YORK. DO NOT DETACH OR REMOVE.	TRANSFER TAX \$	1,440.00

Cheryl Dinolfo Monroe County Clerk



**Record and Return to:** 

ND

# WARRANTY DEED SHORT FORM WITH LIEN COVENANT

THIS INDENTURE, made the 28 day of number 2006, 2006 NOV 30 PM 4: 53

BETWEEN ALAN L. PETERS and DARLENE L. PETERS, residing at 231 Fellows Road, Fairport, New York 14450 and 3820 Kensington Avenue, North Pole, Alaska 99705, respectively;

Grantor

RECORDED

and

WILLIAM METROSE LTD. BUILDER/DEVELOPER, a New York corporation with an office at 55 Sully's Trail, Pittsford, New York 14534

Grantee

WITNESSETH, that the Grantor, in consideration of one dollar (\$1.00), and other good and valuable consideration paid by the Grantee, hereby grants and releases unto the Grantee, the heirs or successors and assigns of the Grantee forever,

ALL THAT TRACT OR PARCEL OF LAND more particularly described on <u>Schedule A</u> attached hereto and made a part hereof.

Subject to all covenants, easements and restrictions of record affecting said premises, if any.

Being the same premises conveyed to the Grantor by Executor's Deed recorded in the Monroe County Clerk's Office on September 20, 2000 in Liber 9365 of Deeds at page 209.

Tax Account No.:140.04-1-4Mailing Address:55 Sully's Trail, Pittsford, New York 14534Property Address:200 Fellows Road, Perinton, New York

**TOGETHER** with all right, title and interest, if any, of the Grantor in and to any streets and roads abutting the above described premises to the center lines thereof.

TOGETHER with the appurtenances and all the estate and rights of the Grantor in and to said premises.

TO HAVE AND TO HOLD the premises herein granted unto the Grantee, the heirs or successors and assigns of the Grantee forever.

AND the Grantor covenants as follows:

FIRST - The Grantee shall quietly enjoy the said premises;

SECOND - The Grantor will forever warrant the title to said premises.

**AND** the said Grantor covenants that it has not done or suffered anything whereby the said premises have been encumbered in any way whatever.

This deed is subject to the trust provisions of Section 13 of the Lien Law.

The words "Grantor" and "Grantee" shall be construed to read in the plural whenever the sense of this deed so requires.

A

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IN WITNESS WHEREOF, the Grantor has executed this deed the day and year first above written.

 $\lambda \frac{(\mu on \vec{\sigma})}{\Delta \ln L}$  Peters

Darlene L. Peters

STATE OF NEW YORK ) COUNTY OF MONROE ) SS.:

STATE OF AI

COUNTY OF

M.Place TM. PLACE Notary Public, State of New York Monroe County 4788512 Commission Expires SS.:/ in the year 2006, before me, the undersigned, a Notary Public in day of /

On the  $\underline{/}$  day of  $\underline{/}$  day of  $\underline{/}$  in the year 2006, before me, the undersigned, a Notary Public in and for said State, personally appeared **Darlene L. Peters**, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

OFFICIAL SEAL STATE OF ALAŞKA NOTARY PUBLIC LaVada D. Chri My Comm, expires:

Record and Return to! Diane O'Haca Mendick 55 Sully's Trail, Suite A Pittsford, N.Y. 14534

## SCHEDULE A

## Legal Description of 200 Fellows Road)

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Perinton consisting of all the property conveyed by Elizabeth Coyne to George R. Peters by deed recorded April 2, 1919 in Liber 1062 of Deeds at page 426, excepting three parcels of land which were conveyed to (1) Clifford C. Hart and Marjorie Hart by deed recorded June 19, 1956 in Liber 3039 of Deeds at page 465, (2) property conveyed by deed recorded herewith to Clifford C. Hart and Marjorie Hart, his wife, which carries out the provision of paragraph #6 of the Will of George Peters recorded in Liber 3479 of Deeds at page 5, (3) parcel conveyed by deed recorded herewith of life interest to Esther Anna Peters with remainder to the children of Warren Peters carrying out the terms of the aforesaid will of George R. Peters.

SECOND PARCEL: Also conveying hereby parcel of land conveyed by August Schaufelberger and wife by deed recorded November 28, 1908 in Liber 777 of Deeds page 365, being the Schaufelberger Farm referred to in Paragraph #8 of the aforesaid Will of George R. Peters.

ALSO DESCRIBED AS:

ń.

ALL THAT TRACT OR PARCEL OF LAND containing 31.052 acres more or less, situate in the Phelps and Gorham Purchase, Township 12, Range 4, Town Lot 30, Town of Perinton, County of Monroe, and State of New York, as shown on the drawing entitled "Peters Property, Boundary Survey Map of 200 Fellows Road," prepared by BME Associates, having drawing number 2205-01, last revised October 9, 2006, being more particularly bounded and described as follows:

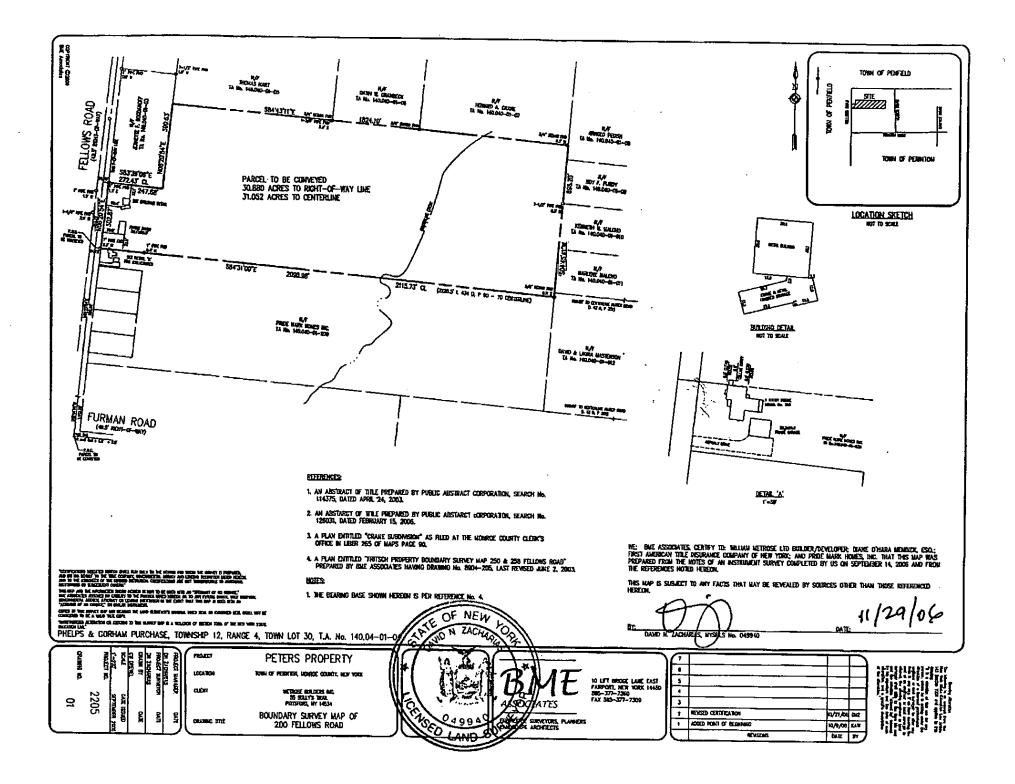
Commencing at a point, said point being a nail found at the intersection of the centerline of Furman Road (49.5' Right-of-Way) with the centerline of Fellows Road (49.5' Right-of-Way); thence

- A. N05°44'55"E, along said centerline of Fellows Road, a distance of 1,013.76 feet to an angle point; thence
- B. N06°20'54"E, continuing along said centerline of Fellows Road, a distance of 529.98 feet to the Point of Beginning; thence
  - N06°20'54"E, continuing along said centerline of Fellows Road, a distance of 303.25 feet to a point on the southerly boundary line of lands now or formerly of Jeannette F. Bogdanoff (T.A. No. 140.040-01-03); thence
  - 2. S83°39'06"E, along said southerly boundary line of Bogdanoff, a distance of 272.43 feet to a point at the southeasterly boundary corner thereof; thence
  - 3. N06°20'54"E, along the easterly boundary line of said lands of Bogdanoff, a distance of 390.63 feet to a point on the southerly boundary line of lands now or formerly of Thomas Hart (T.A. No. 140.040-01-05); thence
  - 4. S84°43'11"E, along said southerly boundary line of Hart and along the southerly boundary line of lands now or formerly of Dawn W. Grambeck (T.A. No. 140.040-01-06) and Howard A. Crane (T.A. No. 140.040-01-07), a distance of 1,824.10 feet to a point on the westerly boundary line of lands now or formerly of Arnold Pegish (T.A. No. 140.040-01-08); thence
  - 5. S04°45'41"W, along said westerly boundary line of lands of Pegish and along the westerly boundary line of lands now or formerly of Roy F. Purdy

(T.A. No. 140.040-01-09), Kenneth W. Malcho (T.A. No. 140.040-01-010), Marlene Malcho (T.A. No. 140.040-01-011) and David and Laura Masterson (T.A. No. 140.040-01-012), a distance of 696.20 feet to a point on the northerly boundary line of lands now or formerly of Pride Mark Homes, Inc. (T.A. No. 140-040-01-039); thence

6. N84°31'00"W, along said northerly boundary line of lands of Pride Mark Homes, Inc., a distance of 2,115.73 feet to the Point of Beginning.

\* attached hereto and made a part hereof.



MONROE COUNTY CLERK'S OFFICE

1 1

Return To:

DIANE OHARA MENDICK 55 SULLYS TRAIL STE A PITTSFORD NY 14534 Index DEEDS
Book 10486 Page 0307
No. Pages 0004
Instrument DEED-OTHER
Date : 7/10/2007
Time : 4:12:00
Control # 200707101120

CRANE HOWARD A WILLIAM METROSE LTD

TT# TT 0000 022722 Employee ID RC40

# MORTGAGE TAX

TRANS TAX	\$ 200.00	MORTGAGE AMOUNT	\$ .00
FILE FEE-S	\$ 156.00		
FILE FEE-C	\$ 9.00	BASIC MORTGAGE TAX	\$ .00
FILE FEE-S	\$ 19.00		
FILE FEE-C	\$ 8.00	SPEC ADDIT MTG TAX	\$ .00
REC FEE	\$ 12.00		
MISC FEE-C	\$ 5.00	ADDITIONAL MTG TAX	\$ .00
	\$ .00		
	\$ .00	Total	\$ .00

STATE OF NEW YORK MONROE COUNTY CLERK'S OFFICE

\$

Total:

WARNING - THIS SHEET CONSTITUTES THE CLERKS ENDORSEMENT, REQUIRED BY SECTION 317-a(5) & SECTION 319 OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. DO NOT DETACH OR REMOVE.

409.00

Cheryl Dinolfo Monroe County Clerk



TRANSFER AMT

50,000.00

200.00

TRANSFER AMT \$

TRANSFER TAX \$

Liumhergs Law Products	<ul> <li>۲ 278-Standard N Y B T U Form 8005A-Executor's Deed Individual or Corporation (single sheet), 11 98</li> </ul>	BlumbergExcelsion inc. Publisher, NYC 10013
)	CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THIS INSTRUMENT SH	OULD BE USED BY LAWYERS ONLY.
300	THIS INDENTURE, made on	
<u>`</u>	BETWEEN STEPHEN A, CRANE, residing at 2451 Pe	enfield Road,
	Penfield, NY 14526	
	as executor of HOWARD A. CRANE Penfield, NY	the last will and testament of
	who died on the 5th day of April 2007	
	party of the first part, and Builder/Develo	per 5 3
	WILLIAM METROSE, LTD, with offices at Trail, Pittsford, NY 14534	per 55 sully s
	party of the second part,	
	witnesseth, that the party of the first part, to whom testamentary were issued by the Surrogate's Court, Monroe	letters County, New York
	on May 2, 2007 and by rither of the power and authorn and testament, and/or by Article 11 of the Estates, Powers and Trusts Law, and FIFTY THOUSAND and No/100	ty given in and by said last will
	(550,000,00)	dollars, ond part, does hereby grant and
	release unto the party of the second part, the distributees or successors and as part forever,	signs of the party of the second
	ALL that certain plot, piece or parcel of land, with the buildings and improvide lying and being in the	
	THAT TRACT OR PARCEL OF LAND, containing 6.842 situate in Town Perinton, Township 12, Range 4 Town of Perinton, County of Monroe and State of more particularly described as per attached Sch	
	This conveyance is made and accepted subject easements and restrictions of record in the Mo Office still affecting the said premises, if a	nroe County Clerk's ny.
	Being and hereby intending to convey the same p Howard A. Crane, now deceased, having died Dorothy Crane, now deceased having died Januar dated <b>December 25</b> , 1983 and recorded <b>December</b> Monroe County Clerk's Office in Liber 5965 of d	April 5, 2007 and y 11, 1989, by deed bec 31,1980 in the eeds at page 143.
	TAX ACCOUNT NUMBER: 140.04-1-7 Fairport Property Address: Fellous Rd, Perington, Dependent	NY 14450
	TAMAILING and BILLING ADDRESS: 55 Sully's Trail Pittsford, NY 145	
	TOGETHER with all right, title and interest, if any, of the party of the first roads abutting the above described premises to the center lines thereof; TOGI and also all the estate which the said decedent had at the time of decedent's the estate therein, which the party of the first part has or has power to conve- ually, or by virtue of said will or otherwise; TO HAVE AND TO HOLD the party of the second part, the distributees or successors and assigns of the part	ETHER with the appurtenances, death in said premises, and also y'or dispose of, whether individ- the premises herein granted unto
	AND the party of the first part covenants that the party of the first part has whereby the said premises have been incumbered in any way whatever, except Subject to the trust fund provisions of section thirteen of the Lien Law. The word "party" shall be construed as if it read "parties" whenever the ser	as aforesaid
	IN WITNESS WHEREOF, the party of the first part has duly executed this written.	deed the day and year first above
		STATE OF HOWARD A. CRAI
	Record and Return to Drane O'HARA Mendick 55 Sullys Trail, Suite A	
	Pittsford, NV 14534	i

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ACKNOWLEDGMENT IN NEW YORK	STATE (RPL 309-a)	1	ACKNOWLEDGMENT BY SUBSCRIBING WITNESS(ES)
State of New York, County of On 7660 before personally appeared STEPHEN A. personally known to me or proved to me tory evidence to be the individual(s) of subscribed to the within instrument and a he/she/they executed the same in his and that by his/her/their signature(s) on vidual(s), or the person upon behalf of acted, executed the instrument.	Monroe e me, the under CRANE, a Executor on the basis of s whose name(s) cknowledged to /her/their capac the instrument, th which the indiv	a S satisfac- is (are) me that ity(ies), he indi- idual(s) $C_{accur}$ $c_{ac$	ACKNOWLEDGMENT BY SUBSCRIBING WITNESS[ES]         State of County of       ss.:         On       before me, the undersigned, personally appeared         the subscribing witness(es) to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he/she/they reside(s) in (if the place of residence is in a city, include the street and street number if any, thereof),         WMARK STATEST STATEST Strength         WMARK STATEST STRENGT         that he/she/they know(s)         to be the individual(s) described in and who executed the fore- going instrument, that said subscribing witness(es) was (were) present and saw said         execute the same, and that said witness(es) at the same time subscribed his/her/their name(s) as a witness(es) thereto ( if itaken outside New York State insert city or political subdivision and state or country or other place achained appearance before the undersigned in (signature and office of individual
(signature and office of individ Executor's Deeb No.			SECTION BLOCK LOT COUNTY OR TOWN STREET ADDRESS
			RETURN BY MAIL TO

Zıp No.

 ALL THAT TRACT OR PARCEL OF LAND containing 6 842 acres more or less, situate in the Phelps and Gorham Purchase, Township 12, Range 4, Town Lot 30. Town of Perinton, County of Monroe, and State of New York, as shown on the drawing entitled "Crane Property, Boundary Survey Map of Lands to be Conveyed," prepared by BME Associates, having drawing number 2205-02, dated June 2007, being more particularly bounded and described as follows

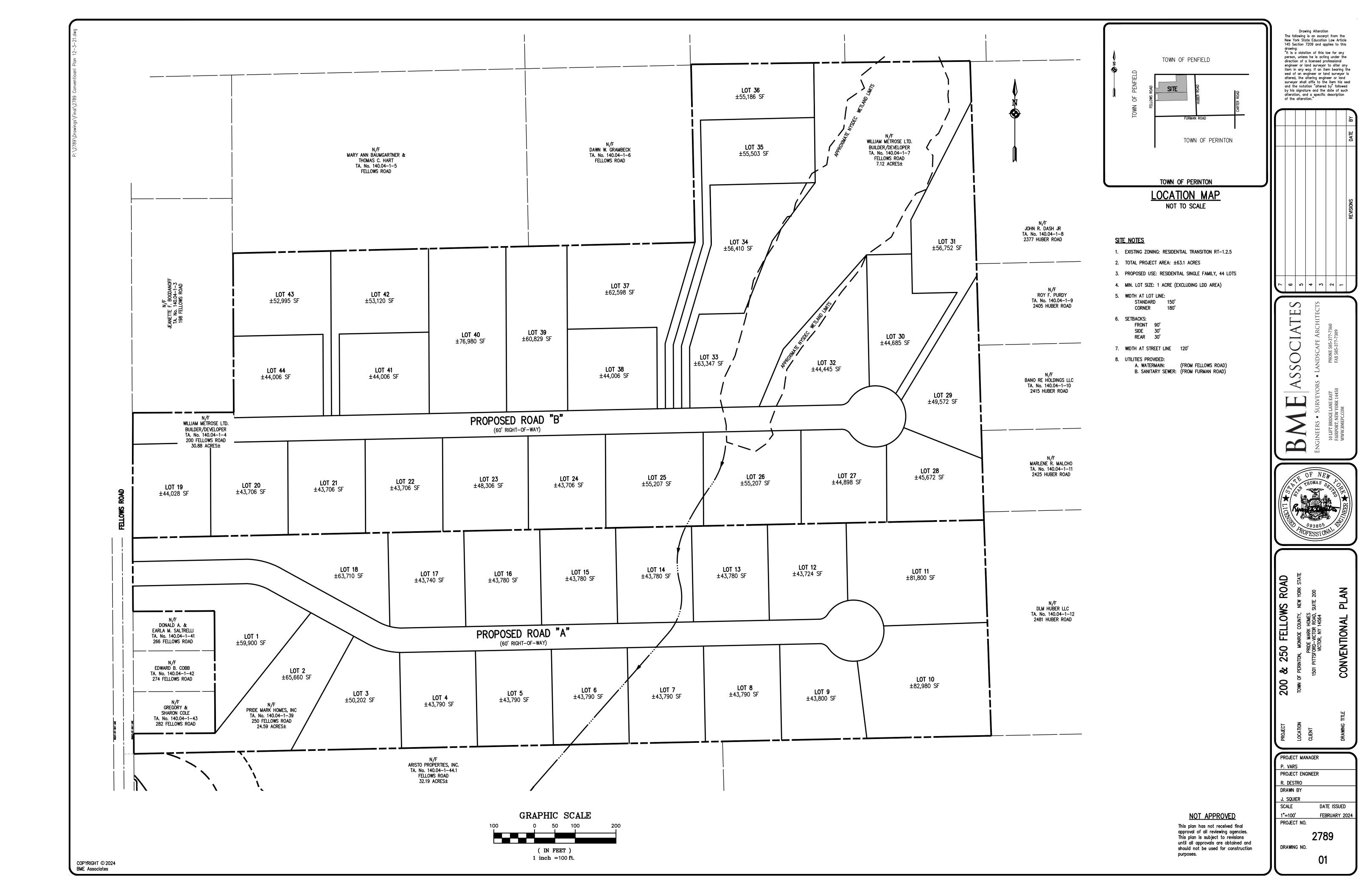
Commencing at a point, said point being a nail found at the intersection of the centerline of Furman Road (49 5' Right-of-Way) with the centerline of Fellows Road  $\exists$  (49 5' Right-of-Way), thence

- A N05°44'55"E, along said centerline of Fellows Road, a distance of 1,013 76 feet-to an angle point, thence
- B N06°20'54", continuing along said centerline of Fellows Road, a distance of 529 98 feet to a point Said point being the Point of Beginning of a parcel conveyed by Peters to Metrose and recorded in the Monroe County Clerk's Office in Liber 10390 D, P 389, thence
- N06°20'54"E, continuing along said centerline of Fellows Road, a distance of 303 25 feet to a point on the southerly boundary line of lands now or formerly of Jeannette F Bogdanoff (T A No 140 040-01-03); thence
- D S83°39'06"E, along said southerly boundary line of Bogdanoff, a distance of 272 43 feet to a point at the southeasterly boundary corner thereof, thence
- E N06°20'54"E, along the easterly boundary line of said lands of Bogdanoff, a ' distance of 390 63 feet to a point on the southerly boundary line of lands now or formerly of Thomas Hart (T A No 140 040-01-05), thence
- F S84°43'11"E, along said southerly boundary line of Hart and along the southerly boundary line of lands now or formerly of Dawn W Grambeck (T A No 140 040-01-06), a distance of 1,134 63 feet to a 3/4" rebar found and also being the Point of Beginning, thence
  - 1 N05°21'01"E, along the easterly boundary line of said Grambeck, a distance of 437 40 feet to a 1 ¾" iron pipe on the northerly boundary line of the town of Perinton and southerly boundary line of the town of Penfield, thence

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- 2 S84°05'35"E. along said town lot line, a distance of 685 07 feet to a 1 ¼" iron pipe found Said pipe also being at the northwest corner of lands now or formerly of Arnold Pegish (TA No 140.04-01-08), thence
- 3 S04°45'41"E, along the westerly boundary line of said Pegish, a distance of 429 92 feet to a point at the northeast corner of aforementioned lands conveyed to Metrose, thence
- 4 N84°43'11"W, along the north boundary line of said Metrose, a distance of 689 46 feet to the Point of Beginning

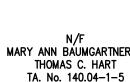


MILY LOTS	PM-1- PM-55: 55 PATIO HOME LOTS @ 60' WIDE
	PM-56 - PM-81: 26 SINGLE FAMILY LOTS @ 80' WIDE
	<u> PM-82 - PM-171: 90 TOWNHOME UNITS</u>
	TOTAL: 171 UNITS

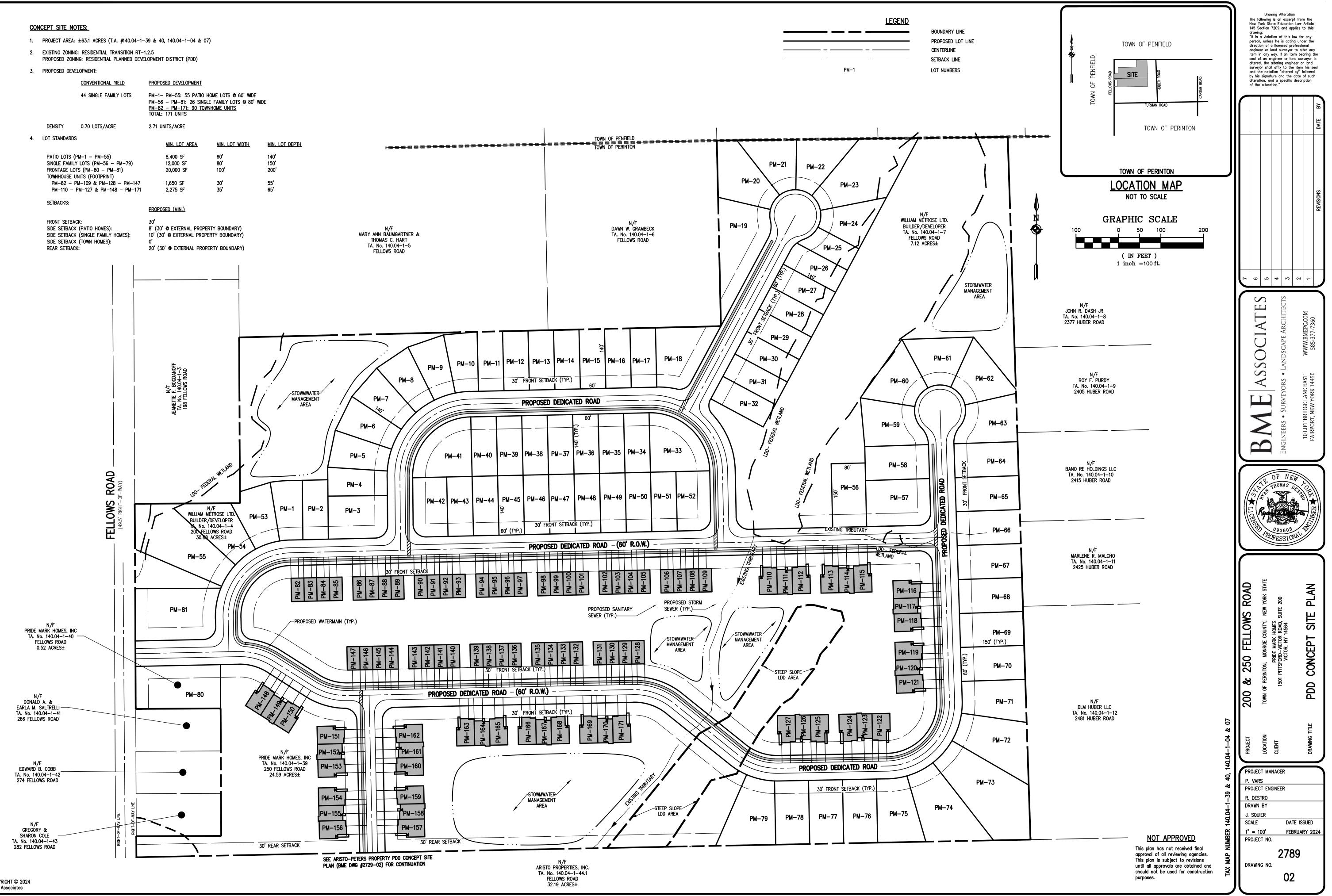
0.70 LOTS/ACRE

OT STANDARDS	
PATIO LOTS (PM-1 - PM-55)	
SINCLE FAMILY LOTS $(PM_56 - PM_70)$	

FRONTAGE LOTS (PM-80 - PM-81)
TOWNHOUSE UNITS (FOOTPRINT)
PM-82 - PM-109 & PM-128 - PM-147
PM-110 - PM-127 & PM-148 - PM-171

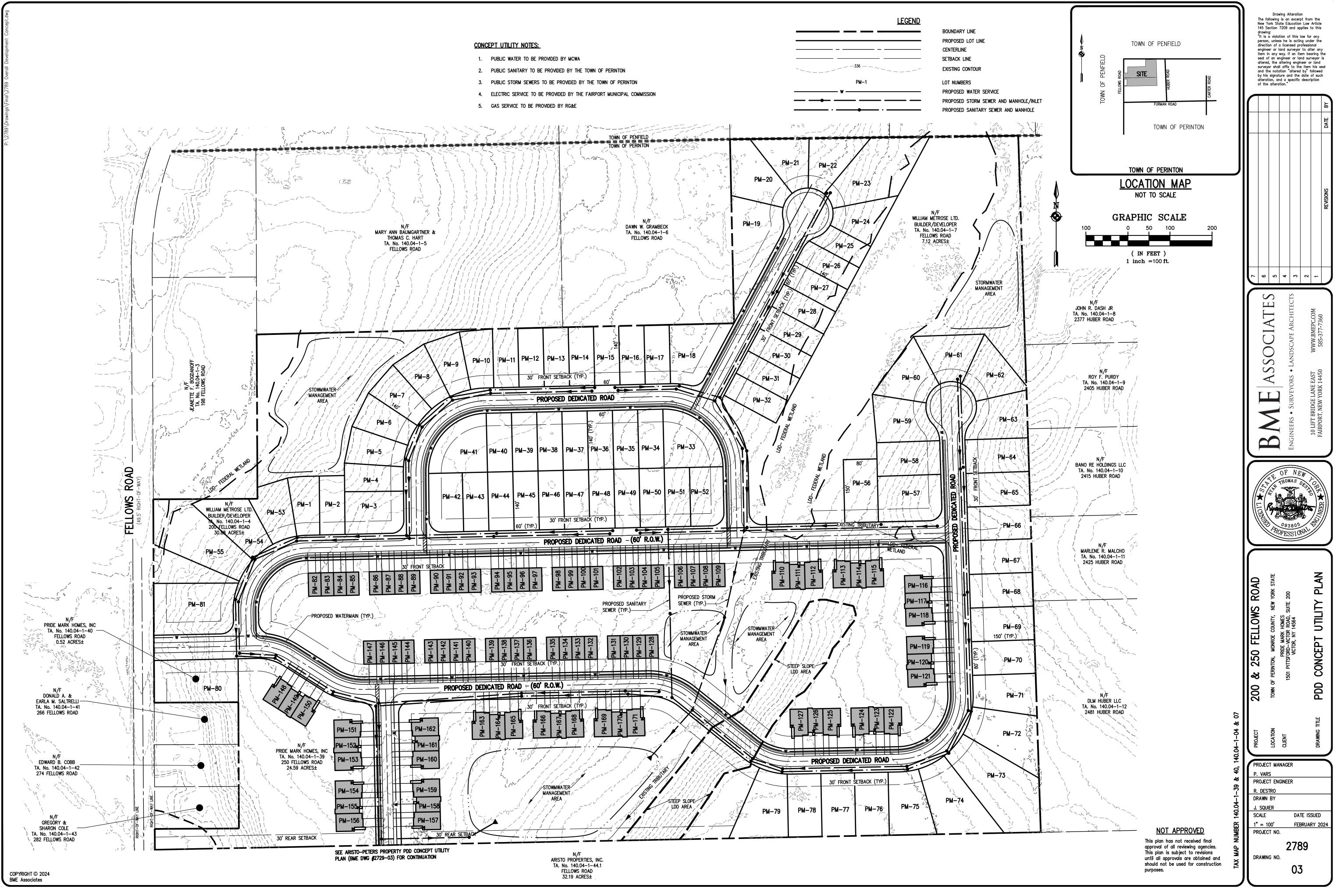


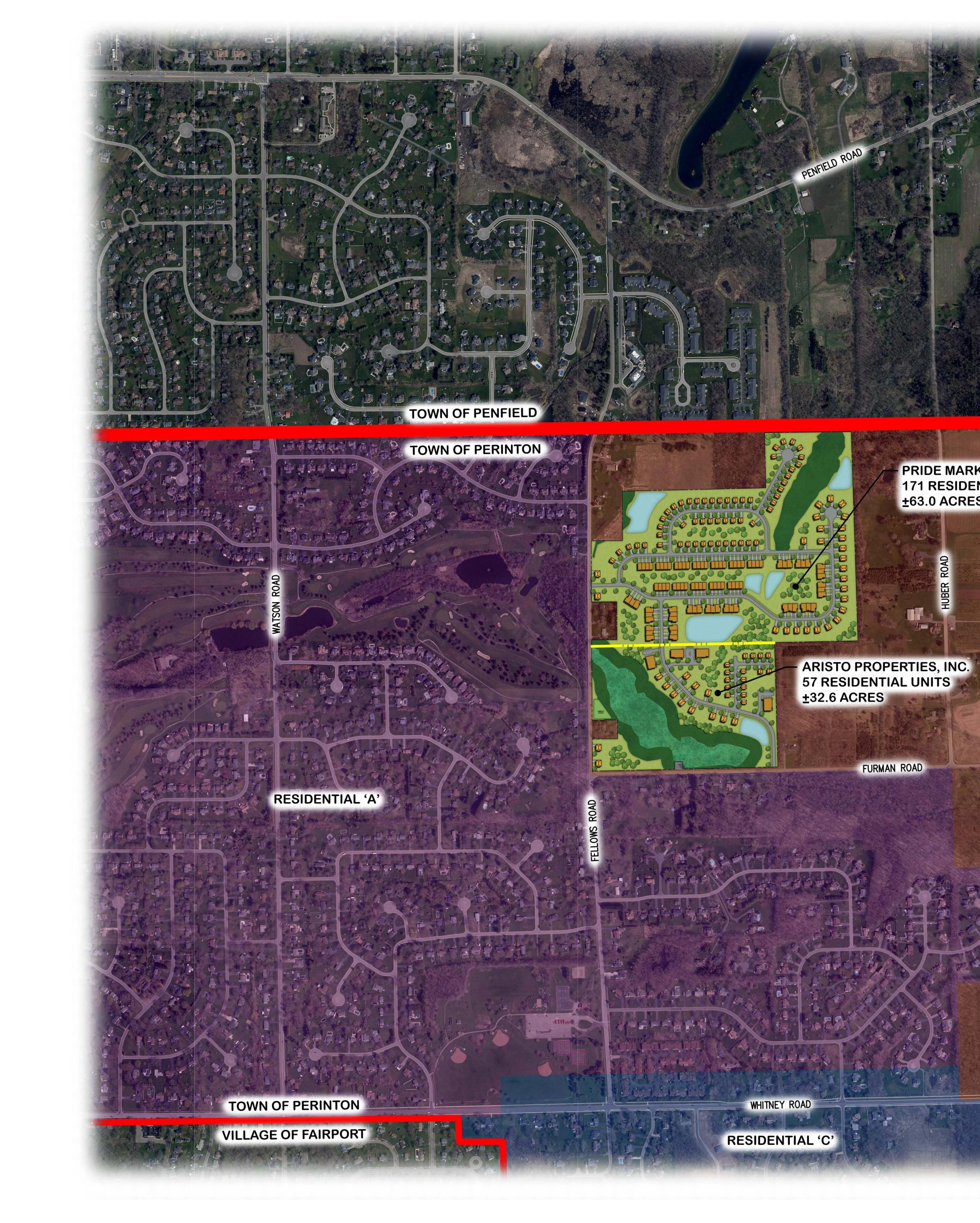
TA. No. 140.04-1-5













ROA

BER

**RESIDENTIAL TRANSITION RT-1.2.5** 

# FURMAN ROAD

# FELLOWS ROAD PROPERTIES

SURROUNDING NEIGHBORHOODS EXHIBIT TOWN OF PERINTON, MONROE COUNTY, NEW YORK

CARTER ROAI

PREPARED FOR: ARISTO PROPERTIES INC. PRIDE MARK HOMES

> SCALE: 1"=300' PROJECT NUMBER: 2789 DATE ISSUED: JANUARY, 2024



# TRAFFIC IMPACT REPORT

February 13, 2024

24

20243756.0001

# FELLOWS ROAD PROPERTIES TOWN OF PERINTON, NY

PREPARED FOR: BME Associates Attn: Mr. Peter G. Vars, P.E. 10 Liftbridge Lane Fairport, NY 14450



242 West Main Street, Suite 100 | Rochester, NY 14614 | 585.325.1000 | www.passero.com

# TRAFFIC IMPACT REPORT - FELLOWS ROAD PROPERTIES



February 13, 2024

# **TABLE OF CONTENTS**

1.0	EXECUTIVE SUMMARY	
2.0	INTRODUCTION	
	2.1 Study Purpose and Objectives	4
	2.2 Project Location	
	2.3 Study Area	4
3.0	TRANSPORTATION SETTING	4
	3.1 Description of Study Area Roadways	4
	Table 1: Existing Highway System	
	3.2 Description of Multimodal Network	5
	Table 2:         Multimodal Network	
	3.3 Planned/Programmed Highway Improvements	6
4.0	EXISTING CONDITIONS ANALYSIS	б
	4.1 Peak Intervals for Analysis	6
	4.2 Existing Traffic Volume Data	6
	4.3 Existing Crash Investigation	
	Table 3:         Intersection Crash Rate Analysis	
	4.4 Sight Distance Evaluation	
	Table 4:         Sight Distance Evaluation	
5.0	BACKGROUND (NO BUILD) CONDITIONS	
6.0	PROPOSED DEVELOPMENT CONDITIONS	
	6.1 Project Description	9
	6.2 Proposed Traffic Generation	9
	Table 5:         Site Generated Trips	
	6.3 Trip Distribution	10
	6.4 Full Development Volumes	10
7.0	TRAFFIC OPERATIONS AND ANALYSIS	
	7.1 Left-Turn Warrant Investigation	10
	7.2 Description of Capacity Analysis	
	Table 6:         Level of Service Criteria	
	7.3 Capacity Analysis Results	12
	Table 7:         Capacity Analysis Results	
8.0	CONCLUSIONS AND RECOMMENDATIONS	
9.0	REFERENCES	
10.0	FIGURES	

# **APPENDICES**

EXISTING TRAFFIC COUNT DATA
MISCELLANEOUS CALCULATIONS
LOS CALCULATIONS – EXISTING CONDITIONS
LOS CALCULATIONS – BACKGROUND CONDITIONS
LOS CALCULATIONS – FULL BUILD CONDITIONS
LOS CALCULATIONS – FULL BUILD CONDITIONS WITH MITIGATION





# **1.0 EXECUTIVE SUMMARY**

The purpose of this report is to evaluate the potential traffic impacts related to the proposed residential development located along Fellows Rd in the Town of Perinton, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are evaluated and mitigating measures are identified (if needed) to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

# Project Location and Description

The project site is located at the northeast corner of the Fellows Road/Furman Road intersection in the Town of Perinton, Monroe County, New York. The project site is bounded by St. John's Home Residential Care and undeveloped land to the north, Fellows Road to the west, Furman Rd to the south, and single family homes and farmland along Huber Rd to the east. The project site currently consists of farmland and undeveloped land. The land uses in the vicinity of the project site are primarily residential as well as some agricultural land and retail uses.

The proposed development consists of constructing 106 single family homes, 26 townhome buildings containing either 3 or 4 units each for a total of 90 townhome units, and 4 condominium buildings containing 7 units each for total of 28 condominium units. Access to the site will be provided via one new driveway along Fellows Rd and one new driveway along Furman Rd.

# <u>Study Area</u>

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following three (3) intersections:

- 1. Penfield Rd/Fellows Rd
- 2. Fellows Rd/Furman Rd
- 3. Whitney Rd East/Fellows Rd/Roxwell Ct

# Existing and Background Conditions

Turning movement traffic counts were collected by Passero Associates on Thursday, January 18, 2024, at the study intersections for the weekday PM peak hour period and on Friday, January 19, 2024, at the study intersections for the weekday AM peak hour period. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred between 7:15-8:15 AM and 4:30-5:30 PM.

Construction of the proposed project is anticipated to reach full build-out within approximately five years. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased between 2010 and 2019 in the study area. To account for normal increases in background traffic growth, as well as any unforeseen developments in the study area, a growth rate of 0.5% per year was applied to the existing traffic volumes for the five-year build out period.





# Conclusions and Recommendations

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed development located along Fellows Rd in the Town of Perinton, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the noted mitigation in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

# Conclusions

- 1. The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.
- 2. Based on the results of the crash analysis, there are no inherent safety deficiencies at any of the study intersections.
- 3. The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection warning sign located approximately ±565' to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.
- 4. The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions.
- 5. The detailed analysis contained in this Traffic Impact Study demonstrates the proposed project will not result in any potentially significant adverse environmental impacts for the purpose of the environmental review of the project pursuant to the State Environmental Quality Review Act ("SEQRA").

# Recommendations

- 6. It is recommended that a westbound left-turn lane is constructed at the Penfield Rd/Fellows Rd intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection.
- 7. The proposed driveway along Fellows Rd should be designed to provide one enter and one exit lane.
- 8. The proposed driveway along Furman Rd should be designed to provide one enter and one exit lane.





February 13, 2024

# 2.0 INTRODUCTION

# 2.1 Study Purpose and Objectives

The purpose of this report is to evaluate the potential traffic impacts related to the proposed residential development located along Fellows Rd in the Town of Perinton, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are evaluated and mitigating measures are identified (if needed) to minimize operational concerns.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

# 2.2 Project Location

The project site is located at the northeast corner of the Fellows Road/Furman Road intersection in the Town of Perinton, Monroe County, New York. The project site is bounded by St. John's Home Residential Care and undeveloped land to the north, Fellows Road to the west, Furman Rd to the south, and single family homes and farmland along Huber Rd to the east. The project site currently consists of farmland and undeveloped land. The land uses in the vicinity of the project site are primarily residential as well as some agricultural land and retail uses.

# 2.3 Study Area

To ensure a comprehensive analysis of potential traffic impacts, a study area was selected consisting of the following three (3) intersections:

- 1. Penfield Rd/Fellows Rd
- 2. Fellows Rd/Furman Rd
- 3. Whitney Rd East/Fellows Rd/Roxwell Ct

The project site location and study area are illustrated in **Figure 1** (all figures are included at the end of this report).

# 3.0 TRANSPORTATION SETTING

# 3.1 Description of Study Area Roadways

The information outlined in **Table 1** provides a description of the existing roadway network within the study area. **Figure 2** illustrates the lane geometry and traffic control at each of the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the NYSDOT.



# February 13, 2024

ROADWAY	CLASS <sup>1</sup>	AGENCY <sup>2</sup>	SPEED LIMIT <sup>3</sup>	TRAVEL LANES⁴	ORIENTATION OF TRAVEL	AADT⁵
Penfield Road (NY-441)	16	NYSDOT	45	2	Two-way/ East-West	12,162 NYSDOT (2019)
Fellows Road	19	Town of Perinton	30/35	2	Two-way/ North-South	1,705 Passero (2024)
Furman Rd	19	Town of Perinton	40	2	Two-way/ East-West	1,146 NYSDOT (2018)
Whitney Road East	16	MCDOT	35	2	Two-way/ East-West	11,596 NYSDOT (2016)

# **Table 1:** Existing Highway System

Notes:

- 1. State functional classification of roadway
- 2. Jurisdictional agency of roadway.
- 3. Posted or statewide limit in miles per hour (mph).
- 4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
- 5. Estimated AADT in vehicles per day (vpd). AADT source (Year).

The Highway Functional Classification System defines the role a roadway plays in the overall road network. Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA).

# **Urban Minor Arterial (Class 16)**

An urban minor arterial interconnects and augments the higher-level arterials as well as serves trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials. They distribute traffic to smaller geographic areas than those served by higher-level Arterials and provide more land access than Principal Arterials without penetrating identifiable neighborhoods. They also provide urban connections for Rural Collectors.

# Urban Local (Class 19)

According to the FHWA, this class of roadway includes all facilities not in one of the higher systems (e.g., arterial, collector, etc.). It primarily permits direct access to abutting lands and connections to the higher order systems and is not intended for use in long distance travel. As public roads, they should be accessible for public use throughout the year. Generally, the streets carry little to no through-traffic flows.

# 3.2 Description of Multimodal Network

**Table 2** summarizes the traffic controls, pedestrian, bicycle, and transit accommodations within the study area.



INTERSECTION	Penfield Rd/ Fellows Rd	Fellows Rd/ Furman Rd	Whitney Rd East/Fellows Rd
Intersection Control Type	Unsignalized	Unsignalized	Unsignalized
Sidewalks	0	0	•
Crosswalks	0	0	•
Curb Ramps	0	0	
Pedestrian Signal	0	0	0
Pedestrian Push Button	0	0	0
Pedestrian Countdown	0	0	0
Bicycle Facilities	0	0	0
Street Lighting	•	0	•
Transit Route	N/A	N/A	N/A
Present at entire intersection			
Present at portion of intersection			
O Not present at intersection			

# Table 2: Multimodal Network

# 3.3 Planned/Programmed Highway Improvements

There are no planned highway improvement projects in the study area.

# 4.0 EXISTING CONDITIONS ANALYSIS

# 4.1 Peak Intervals for Analysis

Given the functional characteristics of the corridors, adjacent land uses, and the proposed land use for the project site, the peak hours selected for analysis are the weekday AM and PM peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these time periods.

# 4.2 Existing Traffic Volume Data

Turning movement traffic counts were collected by Passero Associates on Thursday, January 18, 2024, at the study intersections for the weekday PM peak hour period and on Friday, January 19, 2024, at the study intersections for the weekday AM peak hour period. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred between 7:30-8:30 AM and 4:15-5:15 PM. The existing peak hour traffic volumes are shown in **Figure 3A**.

All turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed for seasonality and to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to driveways located in the segments between the study intersections.





As a result of traffic volumes being slightly lower than normal due to the time of year that the turning movement traffic counts were collected, a seasonality factor was applied to all the collected traffic volumes. NYSDOT determines seasonality factors based on the month of the year, whether the data was taken during the week or weekend, and the factor group of the surrounding roadways, which is commuter dominated for this project. Given that the weekday AM and PM peak hour data was collected during January, a seasonality factor of 0.901 was applied to the traffic volumes. **Figure 3B** illustrates the representative 2024 weekday AM and PM peak hour base volumes used for analysis purposes in this study.

# 4.3 Existing Crash Investigation

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the Penfield Rd/Fellows Rd and Fellows Rd/Furman Rd study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from August 31, 2018, through August 31, 2023.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of \$1,001 or more. The Non-Reportable type crashes result in property damage of \$1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table 3**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV).

INTERSECTION	NUMBER OF CRASHES	NUMBER OF ENTERING VEHICLES	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Penfield Rd/Fellows Rd	5	14,958 vpd	0.18	0.19
Fellows Rd/Furman Rd	0	1,726 vpd	0.00	0.19

# **Table 3:** Intersection Crash Rate Analysis

Notable crash clusters are approaches with three or greater identifiable consistent crash types.

#### Penfield Rd at Fellows Rd

As shown in **Table 3**, the intersection has a crash rate that is slightly lower than the statewide average crash rate for similar intersections. No discernible crash patterns exist at this study intersection. The five crashes identified consist of the following crash types:

- One westbound rear end crash occurred when a westbound vehicle rear ended a vehicle waiting to turn left onto Fellows Rd.
- One head on crash occurred as a result of a westbound vehicle swerving out of the way to avoid a vehicle waiting to turn left onto Fellows Rd. The vehicle that swerved around the left turning vehicle ended up hitting an eastbound vehicle head on upon trying to regain control of the vehicle.
- One northbound left turn crash occurred as a result of the northbound vehicle not yielding the right of way to traffic along Penfield Rd.



• The other two crashes consisted of a fixed object crash due to a high speed chase and an animal related crash.

#### Fellows Rd at Furman Rd

No crashes occurred at this intersection during the study period.

#### 4.4 Sight Distance Evaluation

This study investigated existing available sight distances at the Fellows Rd/Furman Rd intersection. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection.

Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate Stopping Sight Distance (SSD) for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, Intersection Sight Distances (ISD) that exceed SSD are desirable along the major road.

A Policy on Geometric Design of Highways and Streets 7th Edition (2018), published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required SSD and desirable ISD for the proposed access driveway location.

Required SSD and desirable ISD are based on the design speed for a given section of roadway; generally, the design speed is the posted speed limit plus 5 MPH. In this case, the posted speed limit at the intersection of Furman Rd along Fellows Rd is 30 MPH. Hence a design speed of 35 MPH was used. Stopping sight distance is dependent on the driver's eye height above the road surface, the specified object height above the road surface, and the height and lateral position of sight obstructions within the driver's line of sight. For design purposes, the recommended height is 3.50 feet above the road surface. The specified object height above the road surface is assumed to be 2.0 feet, representative of the shortest object at risk to drivers, including the height of automobile headlights or taillights.

The required SSD and desirable ISD based on the design speeds are shown in **Table 4** for the existing Fellows Rd/Furman Rd intersection.

	POSTED	DESIGN	REQUIRED	DESIRABLE	AVAILABLE SIGHT DISTANCE TO THE:			
INTERSECTION	SPEED	SPEED	SSD	ISD	LEFT	RIGHT <sup>2</sup>		
Fellows Rd/Furman Rd	30 mph	35 mph	250	390	SSD: 375 ISD: 310	SSD: 700+ ISD: 700+		

#### **Table 4:** Sight Distance Evaluation

1. All sight distance measurements shown in feet.

2. Sight distance is unrestricted to the adjacent intersection

The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection warning sign located approximately  $\pm 565'$  to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.





# 5.0 BACKGROUND (NO BUILD) CONDITIONS

Construction of the proposed project is anticipated to reach full build-out within approximately five years. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased between 2010 and 2019 in the study area. To account for normal increases in background traffic growth, as well as any unforeseen developments in the study area, a growth rate of 0.5% per year was applied to the existing traffic volumes for the five-year build out period. The background traffic volumes are depicted in **Figure 4**.

# 6.0 PROPOSED DEVELOPMENT CONDITIONS

# 6.1 Project Description

The proposed development consists of constructing 106 single family homes, 26 townhome buildings containing either 3 or 4 units each for a total of 90 townhome units, and 4 condominium buildings containing 7 units each for total of 28 condominium units. Access to the site will be provided via one new driveway along Fellows Rd and one new driveway along Furman Rd. The Overall Site Plan is included at the end of this report.

# 6.2 Proposed Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. *Trip Generation Manual* (11<sup>th</sup> Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land uses, in this case, the weekday commuter AM and PM peak hours, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis. **Table 5** shows the estimated site generated trips that will be added to the existing roadway system under full project development.





DESCRIPTION	ITF I UC <sup>1</sup>	SIZE	AM PEAI	K HOUR	PM PEAK HOUR		
DESCRIPTION	ITE LUC	JIZE	ENTER	EXIT	ENTER	EXIT	
Single Family Detached Housing	210	106 units	20	59	66	39	
Single Family Attached Housing	215	90 units	10	31	30	21	
Multifamily Housing (Low-Rise)	220	28 units	8	24	21	12	
Total Site Generated Tr	ips		38	114	117	72	
<u>Note:</u> 1. LUC = Land Use Coc	le.						

## **Table 5:** Site Generated Trips

The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.

# 6.3 Trip Distribution

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Employment centers using U.S. Census Data
- Site layout and access locations
- Proximity and access to expressways (I-490) and other main roadways
- Existing traffic patterns
- Existing traffic conditions and controls

**Figure 5** shows the anticipated trip distribution pattern percentage for the project site. **Figure 6** illustrates the peak hour project site-generated traffic based on those percentages.

## 6.4 Full Development Volumes

The proposed design hour traffic volumes are developed for the peak hours by combining the background traffic conditions (Figure 4) and the new site-generated traffic volumes (Figure 6) to yield the traffic volumes under full development conditions. **Figure 7** illustrates the total peak hour volumes anticipated for the proposed project under full build-out conditions.

# 7.0 TRAFFIC OPERATIONS AND ANALYSIS

# 7.1 Left-Turn Warrant Investigation

This study used the Transportation Research Board's (TRB) *NCHRP Report 279 Intersection Channelization Design Guide* to evaluate the volume warrants for a left-turn treatment at the Penfield Rd/Fellows Rd intersection under background and full build conditions. Provisions for left-turn lane facilities should be established where traffic volumes are high enough and safety considerations are sufficient to warrant the additional lane. This investigation analyzed warrants





during the weekday AM and PM peak hours for the intersections under full development conditions. The warrants are based on the design speed of the major roadway.

The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection. Given that, it is recommended that a westbound left-turn lane is constructed at this intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. A concept drawing of this mitigation is included at the end of the report.

# 7.2 Description of Capacity Analysis

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis focuses on intersections, as opposed to highway segments.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the *Highway Capacity Manual* (HCM) 6<sup>th</sup> Edition published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a level of service based on the HCM as an indicator of how well intersections operate.

Six levels of service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the conditions with little to no delay, and LOS "F" conditions with very long delays. Suggested ranges of service capacity and an explanation of levels of service are included in the Appendices. LOS "C" or better is desirable, but LOS "D" for signalized locations and LOS "E" for unsignalized locations are generally thresholds of acceptable operation during peak periods so long as the volume to capacity ratio (v/c) is below 1.0. **Table 6** depicts level of service criteria for both signalized and unsignalized intersections.

LEVEL OF SERVICE	SIGNALIZED CONTROL DELAY PER VEHICLE (seconds)	STOP CONTROL DELAY PER VEHICLE (seconds)
А	< 10	< 10
В	10 – 20	10 – 15
С	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

#### Table 6: Level of Service Criteria





LOS for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. LOS for unsignalized intersections, however, are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals.

The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur.

## 7.3 Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full development conditions are listed in **Table 7**. The discussion following the table summarizes capacity conditions. The detailed Synchro capacity analysis worksheets are contained in the Appendices.



#### **TABLE 7: CAPACITY ANALYSIS RESULTS**

INTERSECTION		2024 EXISTING BASE CONDITIONS			2029 BACKGROUND CONDITIONS				2029 FULL BUILD CONDITIONS					2029 FULL BUILD CONDITION WITH MITIGATION			
-		AM		PM		AM		PM	AM		PM		AM				PM
1. Fellows Rd/Penfield Rd (U)																	
WB Left - Penfield Rd	А	7.8	В	10.1	Α	7.8	В	10.2	Α	7.9	В	10.7		A 7	9	В	10.7
NB - Fellows Rd	С	21.9	E	45.5	С	22.8	E	49.9	D	29.7	F	131.4	_	C 18	.7	D	30.7
2. Fellows Rd/Proposed Driveway (U)					-							_	_				
WB - Propsoed Driveway		N/A —		N/A		N/A -		N/A	А	9.3	А	9.7		N/A			N/A
SB Left - Fellows Rd		N/A —		N/A		IN/A -		N/A -	A	7.4	A	7.6		N/A			N/A
3. Fellows Rd/Furman Rd (U)					-							_					
WB - Furman Rd	А	8.9	А	9.3	Α	9.0	А	9.3	А	9.1	А	9.7		N/A			N/A
SB Left - Fellows Rd	A	7.7	A	7.4	Α	7.7	A	7.4	A	7.7	Α	7.5		N/A			N/A
4. Furman Rd/Proposed Driveway (U)					-							_	_				
EB Left - Furman Rd		N1 / A		N1 / A				NI / A	А	7.3	А	7.3		N1 / A			NI / A
SB - Proposed Driveway		N/A —		N/A		N/A -		N/A	A	8.5	А	8.5		N/A	_		N/A
5. Fellows Rd/Whitney Rd East/Roxwell Ct	(U)				-							_	_				
EB Left - Whitney Rd East	А	8.3	A	7.9	A	8.4	A	7.9	Α	8.4	А	8.0					
WB Left - Whitney Rd East	А	7.5	A	0.0	Α	7.5	A	0.0	Α	7.5	А	0.0		NI / A			NI / A
NB - Roxwell Ct	В	14.8	С	18.3	С	15.1	С	18.8	С	16.2	С	20.9		N/A			N/A
SB - Fellows Rd	В	13.0	В	14.1	В	13.2	В	14.5	В	14.3	С	16.2					

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)

2. NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound

3. (S) = Signalized; (U) = Unsignalized

4. N/A = Approach does not exist and/or was not analyzed during this condition

5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.







#### 1. Fellows Rd/Penfield Rd (Unsignalized)

All approaches operate at LOS "C" or better under existing and background conditions during both peak hours with the exception of the northbound Fellows Rd approach which operates at a LOS "E" during the PM peak hour. Between background and full build conditions the level of service for the northbound approach is projected to change from a LOS "C" to "D" during the AM peak hour and from LOS "E" to "F" during the PM peak hour. With the installation of the westbound left-turn lane and two-way left turn storage lane as noted in Section 7.1, the northbound approach is projected to operate at a LOS "C" during the AM peak hour and LOS "D" during the PM peak hour under full build conditions.

#### 2. Fellows Rd/Proposed Driveway (Unsignalized)

All approaches operate at LOS "A" during both peak hours. No improvements are warranted nor recommended at this location. The proposed driveway should consist of one enter and one exit lane.

#### 3. Fellows Rd/Furman Rd (Unsignalized)

All approaches operate at LOS "A" under all conditions during both peak hours. No changes in level of service are anticipated and no improvements are warranted nor recommended at this location.

#### 4. Furman Rd/Proposed Driveway (Unsignalized)

All approaches operate at LOS "A" during both peak hours. No improvements are warranted nor recommended at this location. The proposed driveway should consist of one enter and one exit lane.

#### 5. Fellows Rd/Whitney Rd East (Unsignalized)

All approaches operate at LOS "C" or better under all conditions during both peak hours. Between background and full build conditions the level of service for the southbound approach is projected to change from a LOS "B" to "C" during the PM peak hour, however this is considered a borderline condition as the threshold between LOS "B" and "C" is 15.0 seconds per vehicle and the actual increase in delay projected is 1.7 seconds. No other changes in levels of service are anticipated and no improvements are warranted nor recommended at this location.

# 8.0 CONCLUSIONS AND RECOMMENDATIONS

This Traffic Impact Study identified and evaluated the potential traffic impacts that can be expected from the proposed development located along Fellows Rd in the Town of Perinton, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting minor impacts to study area intersections with the noted mitigation in place. The following sets forth the conclusions and recommendations based upon the results of the analyses:

#### Conclusions

- 1. The proposed project is expected to generate approximately 38 entering/114 exiting vehicle trips during the AM peak hour and 117 entering/72 exiting vehicle trips during the PM peak hour.
- 2. Based on the results of the crash analysis, there are no inherent safety deficiencies at any of the study intersections.
- 3. The available sight distances along Fellows Rd at the existing Furman Rd intersection to the right exceed the required stopping sight distance (SSD) and desirable intersection sight distance (ISD). To the left, the available sight distance exceeds the required SSD, however, the desirable ISD is not met. There is an existing intersection





warning sign located approximately  $\pm 565'$  to the south of the existing intersection which offsets the less than desirable ISD. Given that, no mitigation is required at this intersection related to existing sight distances.

- 4. The combination of westbound traffic volumes turning left into Fellows Rd from Penfield Rd and the design speed of Penfield Rd indicate that a left-turn treatment is warranted during the PM peak hour under background and full development conditions but not during the AM peak hour under either background or full build conditions.
- 5. The detailed analysis contained in this Traffic Impact Study demonstrates the proposed project will not result in any potentially significant adverse environmental impacts for the purpose of the environmental review of the project pursuant to the State Environmental Quality Review Act ("SEQRA").

#### Recommendations

- 6. It is recommended that a westbound left-turn lane is constructed at the Penfield Rd/Fellows Rd intersection. It is also recommended that a two-way left turn storage lane is constructed opposite the westbound left turn lane to allow vehicles making a northbound left turn to clear the eastbound lane and then wait in the two-way left turn storage lane until it is safe to merge into westbound traffic. It should be noted that three of the crashes at this intersection, which were discussed in Section 4.3, can be mitigated with the construction of a westbound left turn lane and would be safety improvement for the intersection.
- 7. The proposed driveway along Fellows Rd should be designed to provide one enter and one exit lane.
- 8. The proposed driveway along Furman Rd should be designed to provide one enter and one exit lane.



# 9.0 REFERENCES

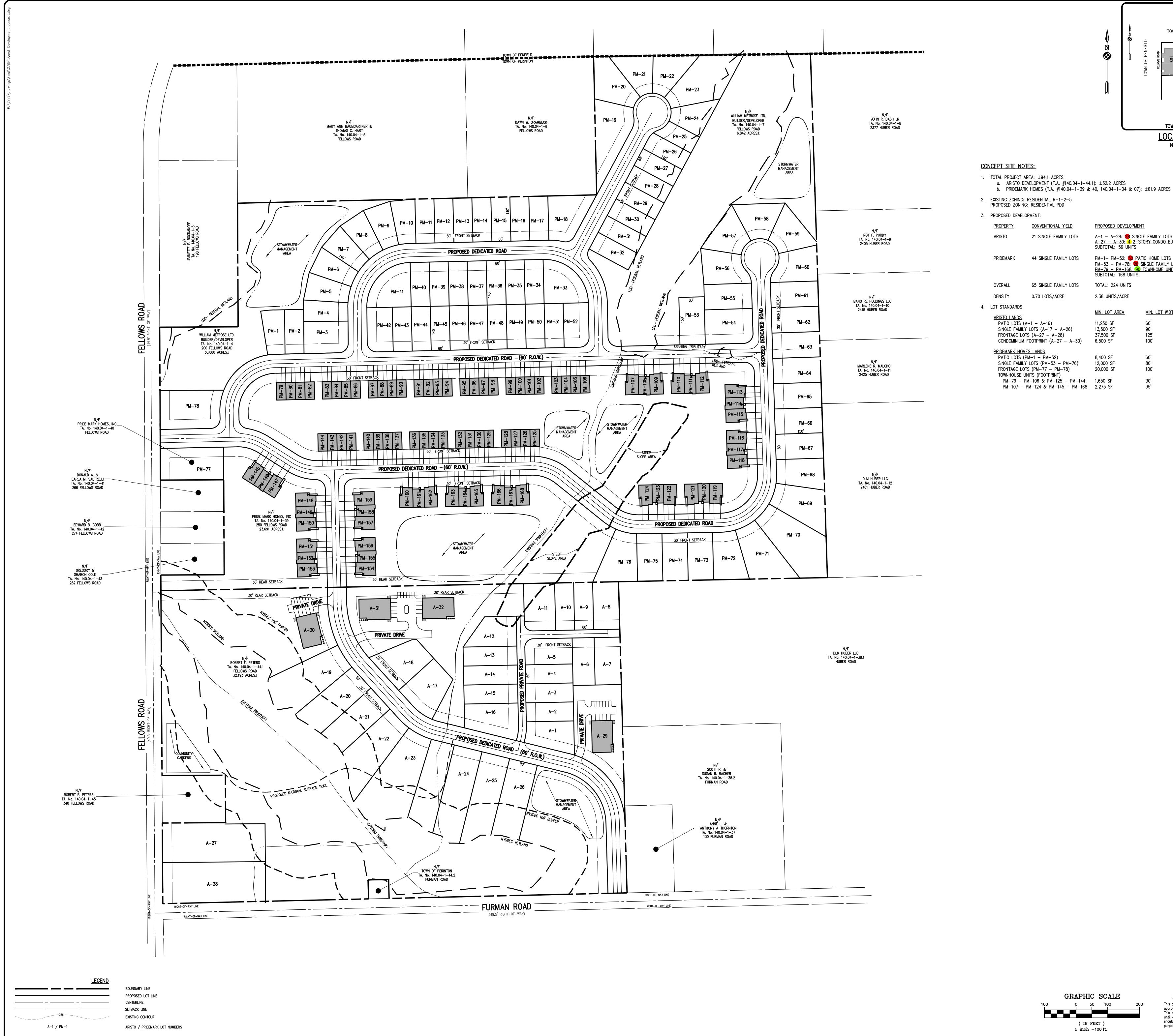
- Synchro 11 Software. Cubic ITS.
- <u>Highway Capacity Manual</u> (HCM 6<sup>th</sup> Edition). Transportation Research Board (TRB). Washington, DC. 2016.
- Highway Functional Classification Concepts, Criteria, and Procedures. FHWA. 2013.
- Trip Generation (11th Edition). Institute of Transportation Engineers (ITE). Washington, DC. 2021.
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- Traffic Data Viewer. New York State Department of Transportation (NYSDOT). 2023.
- NCHRP Report 279 Intersection Channelization Design Guide. TRB. 1985.

# **10.0 FIGURES**

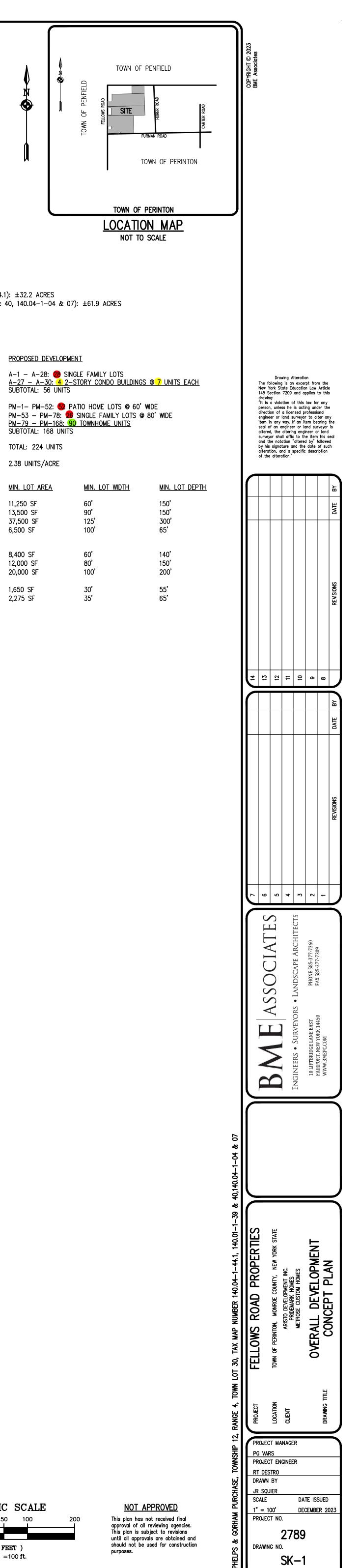
Figures 1 through 7 are included on the following pages.







GRAPHIC SCALE ( IN FEET ) 1 inch = 100 ft.



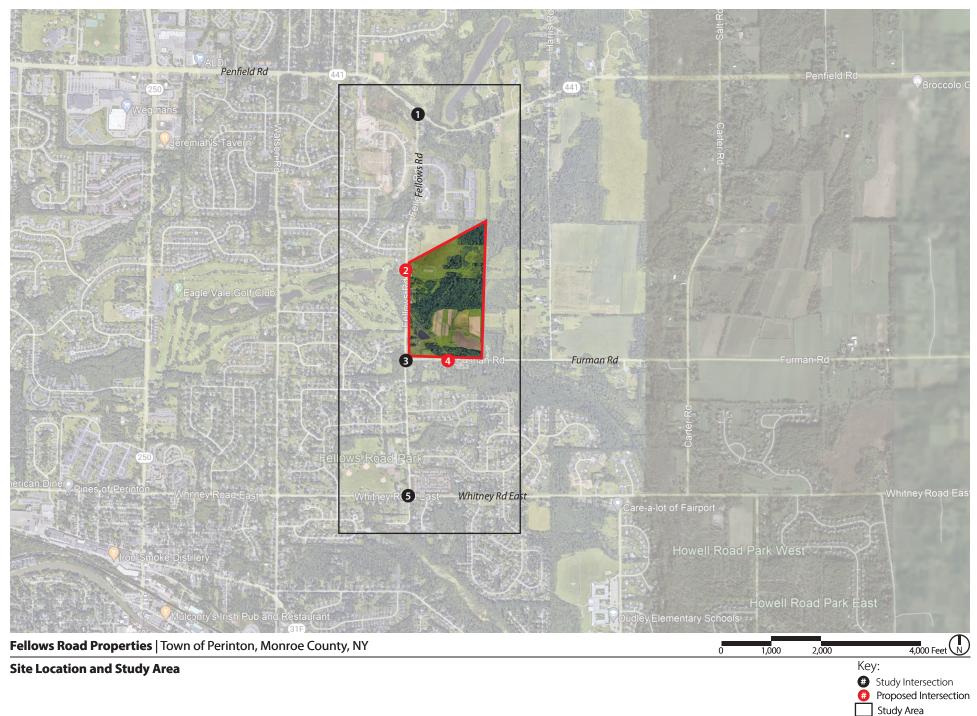




Left Turn Lane Concept



Project Location



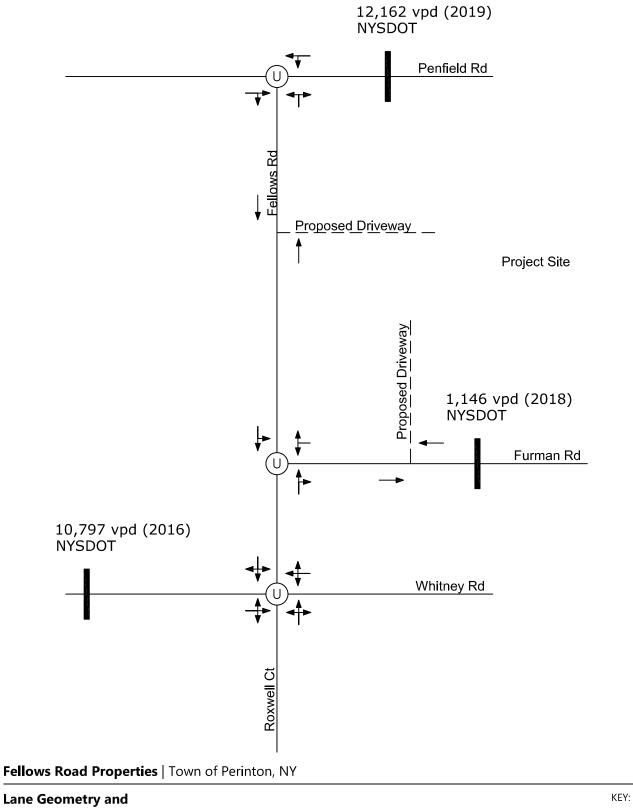
#### Figure 2

#### Notes:

- 1. All AADT volumes by those noted:
- 1.1. NYSDOT = New York State Department of Transportation.



- 1.2. PA = Passero Associates.
- 2. vpd = Vehicles per day.
- 3. Turn lane lengths shown include only storage.

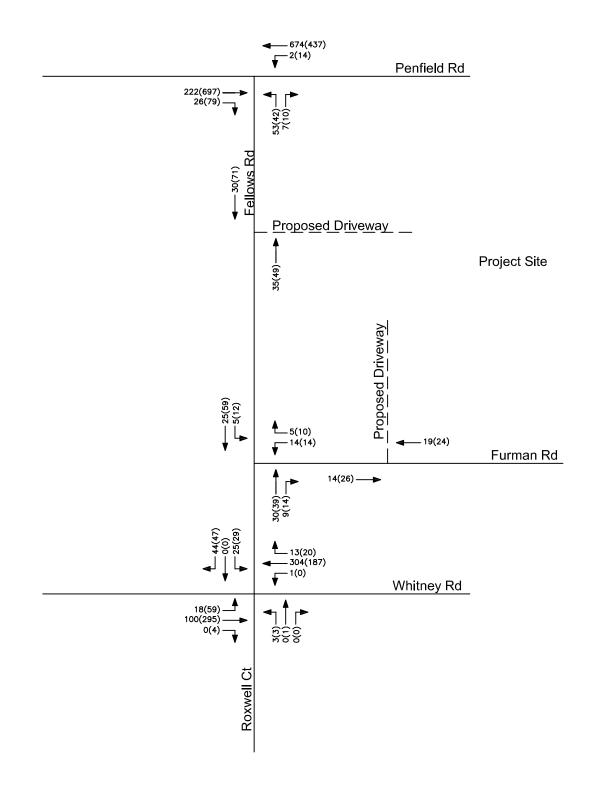


– – Proposed Roadway U = Unsignalized S = Signalized

NOT TO SCALE

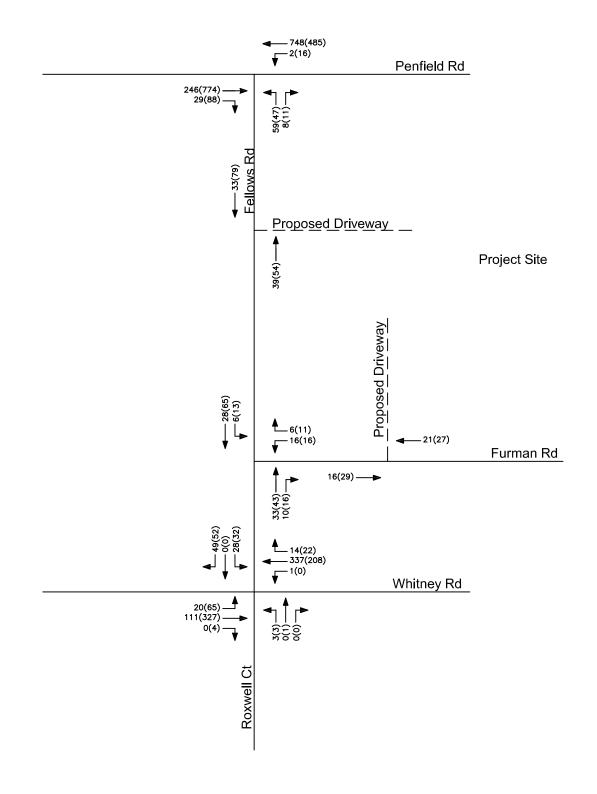
**Average Daily Traffic** 





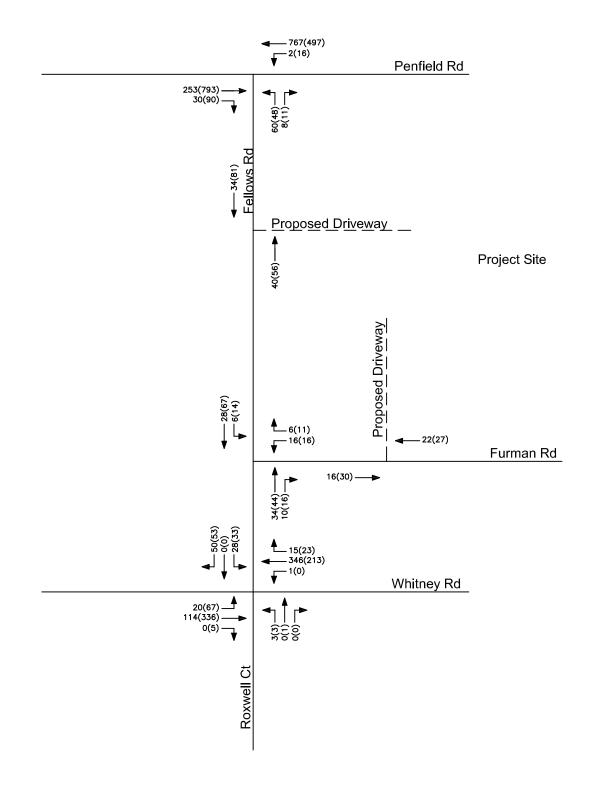
Peak Hour Volumes 2024 Existing Conditions KEY: 00(00) = AM(PM) --- Proposed Roadway





Peak Hour Volumes 2024 Adjusted Base Conditions NOT TO SCALE





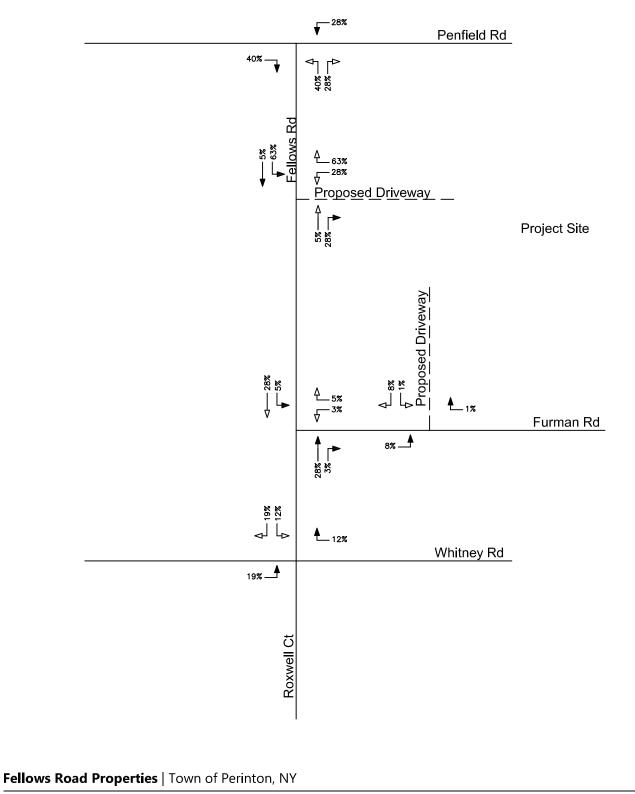
Peak Hour Volumes 2029 Background Conditions NOT TO SCALE

--- Proposed Roadway

KEY:

00(00) = AM(PM)



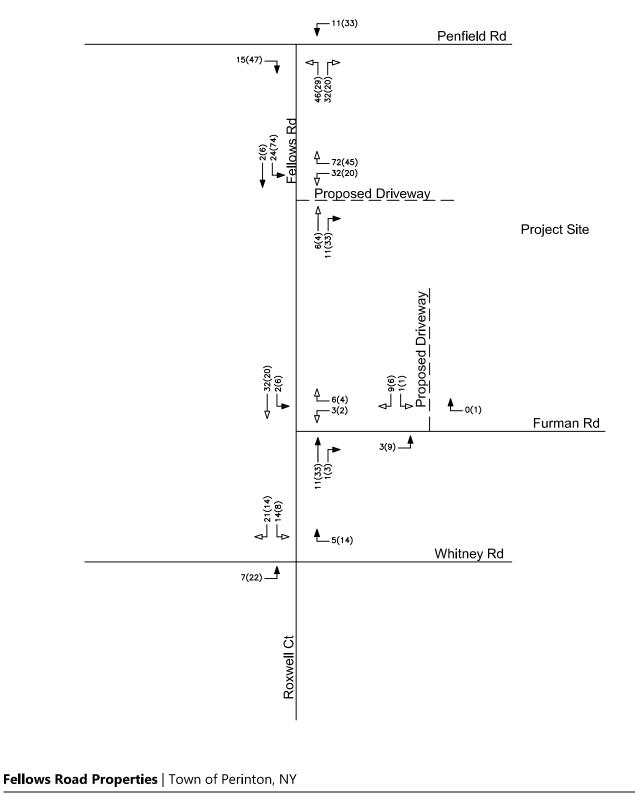


**Trip Distribution** 

KEY: 00(00)	= AM(PM)
_►	Entering Trip
→	Exiting Trip
	Proposed Roadway

NOT TO SCALE



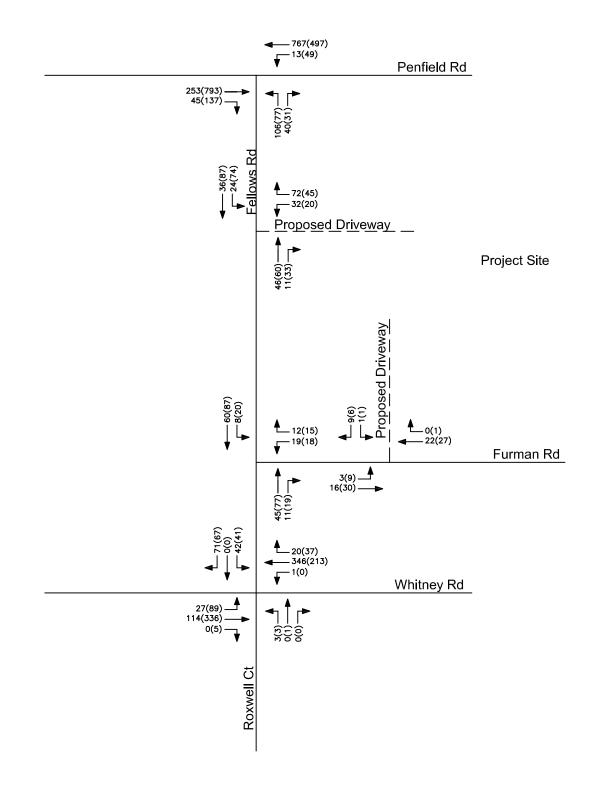




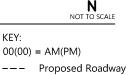
KEY: 00(00)	= AM(PM)
►	Entering Trip
⊳	Exiting Trip Proposed Roadway
	FTOPOSEU Roadway

NOT TO SCALE





Peak Hour Volumes Full Build Conditions



# **APPENDICES**



# **APPENDIX A:** EXISTING TRAFFIC COUNT DATA



# Fellows Road and Penfield Road Perinton Week... - TMC Fri Jan 19, 2024

Fill Length (7 AM-9 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149379, Location: 43.128582, -77.422122

Leg	Penfield Roa	nd			Fellows Roa	d			Penfield Roa	ıd			
Direction	Northwestbo	ound			Northbound				Southeastbo	und			
Time	Т	HL	U	Арр	HR	BL	U	Арр	BR	Т	U	Арр	Int
2024-01-19 7:00AM	161	0	0	161	3	17	0	20	6	48	0	54	235
7:15AM	179	0	0	179	2	12	0	14	6	53	0	59	252
7:30AM	171	0	0	171	2	15	0	17	6	58	0	64	252
7:45AM	168	1	0	169	3	14	0	17	4	53	0	57	243
Hourly Total	679	1	0	680	10	58	0	68	22	212	0	234	982
8:00AM	156	1	0	157	0	12	0	12	10	58	0	68	237
8:15AM	162	3	0	165	2	10	0	12	14	47	0	61	238
8:30AM	151	1	0	152	1	16	0	17	11	51	0	62	231
8:45AM	113	0	0	113	3	13	0	16	14	65	0	79	208
Hourly Total	582	5	0	587	6	51	0	57	49	221	0	270	914
Total	1261	6	0	1267	16	109	0	125	71	433	0	504	1896
% Approach	99.5%	0.5%	0%	-	12.8%	87.2%	0%	-	14.1%	85.9%	0%	-	-
% Total	66.5%	0.3%	0%	66.8%	0.8%	5.7%	0%	6.6%	3.7%	22.8%	0%	26.6%	-
Lights and Motorcycles	1231	5	0	1236	15	109	0	124	64	397	0	461	1821
% Lights and Motorcycles	97.6%	83.3%	0%	97.6%	93.8%	100%	0%	99.2%	90.1%	91.7%	0%	91.5%	96.0%
Heavy	30	1	0	31	1	0	0	1	7	36	0	43	75
% Heavy	2.4%	16.7%	0%	2.4%	6.3%	0%	0%	0.8%	9.9%	8.3%	0%	8.5%	4.0%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC Fri Jan 19, 2024 Full Length (7 AM-9 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149379, Location: 43.128582, -77.422122

INNI Penfield Road 1310

Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

out: Anoral Inteld Road

Out: 77 In: 125 Total: 202 [S] Fellows Road

109 16

# Fellows Road and Penfield Road Perinton Week... - TMC

Fri Jan 19, 2024 AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149379, Location: 43.128582, -77.422122

Leg	Penfield Roa	ıd			Fellows Road	1			Penfield Roa	d			
Direction	Northwestbo	ound			Northbound				Southeastbou	ınd			
Time	Т	HL	U	Арр	HR	BL	U	Арр	BR	Т	U	Арр	Int
2024-01-19 7:15AM	179	0	0	179	2	12	0	14	6	53	0	59	252
7:30AM	171	0	0	171	2	15	0	17	6	58	0	64	252
7:45AM	168	1	0	169	3	14	0	17	4	53	0	57	243
8:00AM	156	1	0	157	0	12	0	12	10	58	0	68	237
Total	674	2	0	676	7	53	0	60	26	222	0	248	984
% Approach	99.7%	0.3%	0%	-	11.7%	88.3%	0%	-	10.5%	89.5%	0%	-	-
% Total	68.5%	0.2%	0%	68.7%	0.7%	5.4%	0%	6.1%	2.6%	22.6%	0%	25.2%	-
PHF	0.941	0.500	-	0.944	0.583	0.883	-	0.882	0.650	0.957	-	0.912	0.976
1111	0.0.11												
Lights and Motorcycles		2	0	665	7	53	0	60	23	203	0	226	951
	663		0 0%	665 98.4%		53 100%	0 0%	60 100%	23 88.5%	203 91.4%	0 0%	226 91.1%	951 96.6%
Lights and Motorcycles	663 98.4%	2					-				-		

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC Fri Jan 19, 2024 AM Peak (7:15 AM - 8:15 AM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements

ID: 1149379, Location: 43.128582, -77.422122

1 MN Penfield Road 121 1 MN Penfield Road 121 Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

Out: 28 In: 60 Total: 88 [S] Fellows Road

73

out: 22 foral: pentield Road

#### Fellows Road and Penfield Road Perinton Week... - TMC

Thu Jan 18, 2024 Full Length (4 PM-6 PM) All Classes (Lights and Motorcycles, Heavy) All Movements

ID: 1149378, Location: 43.128582, -77.422122

Leg	Penfield Roa	ıd			Fellows Road	1			Penfield Ro	ad			
Direction	Northwestbo				Northbound				Southeastbo	und			
Time	Т	HL	U	Арр	HR	BL	U	Арр	BR	Т	U	Арр	Int
2024-01-18 4:00PM	87	2	0	89	4	11	0	15	15	175	0	190	294
4:15PM	111	2	0	113	5	14	0	19	19	147	0	166	298
4:30PM	123	1	0	124	2	14	0	16	19	198	0	217	357
4:45PM	96	3	0	99	3	12	0	15	24	167	0	191	305
Hourly Total	417	8	0	425	14	51	0	65	77	687	0	764	1254
5:00PM	108	4	0	112	4	8	0	12	15	175	0	190	314
5:15PM	110	6	0	116	1	8	0	9	21	157	0	178	303
5:30PM	97	1	0	98	1	11	0	12	11	182	0	193	303
5:45PM	71	0	0	71	4	5	0	9	18	161	0	179	259
Hourly Total	386	11	0	397	10	32	0	42	65	675	0	740	1179
Total	803	19	0	822	24	83	0	107	142	1362	0	1504	2433
% Approach	97.7%	2.3%	0%	-	22.4%	77.6%	0%	-	9.4%	90.6%	0%	-	-
% Total	33.0%	0.8%	0%	33.8%	1.0%	3.4%	0%	4.4%	5.8%	56.0%	0%	61.8%	-
Lights and Motorcycles	782	19	0	801	24	83	0	107	142	1348	0	1490	2398
% Lights and Motorcycles	97.4%	100%	0%	97.4%	100%	100%	0%	100%	100%	99.0%	0%	99.1%	98.6%
Heavy	21	0	0	21	0	0	0	0	0	14	0	14	35
% Heavy	2.6%	0%	0%	2.6%	0%	0%	0%	0%	0%	1.0%	0%	0.9%	1.4%

<sup>\*</sup>BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC Thu Jan 18, 2024 Full Length (4 PM-6 PM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149378, Location: 43.128582, -77.422122

> 1 NN Penfield Road 1 NN Penfield Road 1 NN Penfield Road 1 290 JE: 886 1 290 JE: 886

OUT: 138 TOTAL POINT OF THE PORT

24 24

Total: 268 [S] Fellows Road

ln: 107

Out: 161

2 of 4

#### Fellows Road and Penfield Road Perinton Week... - TMC

Thu Jan 18, 2024 PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149378, Location: 43.128582, -77.422122

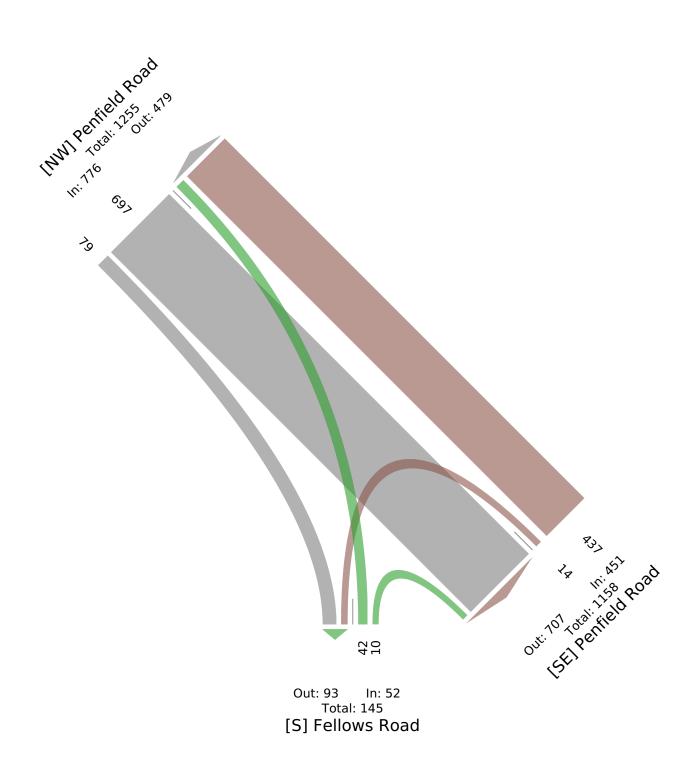
Leg	Penfield Roa	nd			Fellows Road	1			Penfield Roa	nd			
Direction	Northwestbo	ound			Northbound				Southeastbo	und			
Time	Т	HL	U	Арр	HR	BL	U	Арр	BR	Т	U	Арр	Int
2024-01-18 4:30PM	123	1	0	124	2	14	0	16	19	198	0	217	357
4:45PM	96	3	0	99	3	12	0	15	24	167	0	191	305
5:00PM	108	4	0	112	4	8	0	12	15	175	0	190	314
5:15PM	110	6	0	116	1	8	0	9	21	157	0	178	303
Total	437	14	0	451	10	42	0	52	79	697	0	776	1279
% Approach	96.9%	3.1%	0%	-	19.2%	80.8%	0%	-	10.2%	89.8%	0%	-	-
% Total	34.2%	1.1%	0%	35.3%	0.8%	3.3%	0%	4.1%	6.2%	54.5%	0%	60.7%	-
PHF	0.888	0.583	-	0.909	0.625	0.750	-	0.813	0.823	0.880	-	0.894	0.896
Lights and Motorcycles	429	14	0	443	10	42	0	52	79	690	0	769	1264
% Lights and Motorcycles	98.2%	100%	0%	98.2%	100%	100%	0%	100%	100%	99.0%	0%	99.1%	98.8%
Heavy	8	0	0	8	0	0	0	0	0	7	0	7	15
% Heavy	1.8%	0%	0%	1.8%	0%	0%	0%	0%	0%	1.0%	0%	0.9%	1.2%

\*BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, T: Thru, U: U-Turn

Fellows Road and Penfield Road Perinton Week... - TMC

Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

Thu Jan 18, 2024 PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149378, Location: 43.128582, -77.422122



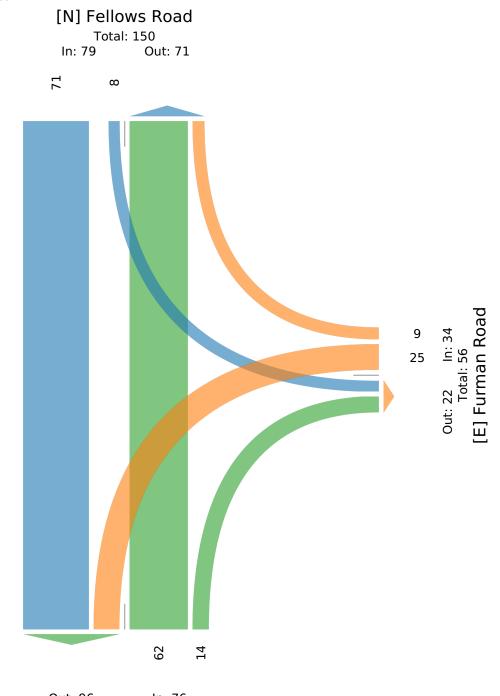
#### Fellows Road and Furman Road Perinton Weekda... - TMC Fri Jan 19, 2024 Full Length (7 AM-9 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969

Leg Fellows Road Furman Road Fellows Road Direction Southbound Westbound Northbound App Int Time U U U Т L R L Арр R Т Арр 2024-01-19 7:00AM 7:15AM 7:30AM 7:45AM Hourly Total 8:00AM 8:15AM 8:30AM 8:45AM Hourly Total Total % Approach 89.9% 10.1% 0% 26.5% 73.5% 0% 18.4% 81.6% 0% % Total 37.6% 4.2% 0% 41.8% 4.8% 13.2% 0% 18.0% 7.4% 32.8% 0% 40.2% Lights and Motorcycles 92.4% 88.9% 91.2% 97.4% 94.2% % Lights and Motorcycles 94.4% 75.0% 0% 92.0% 0% 85.7% 100% 0% Heavy 5.6% 7.6% 8.8% 5.8% % Heavy 25.0% 0% 11.1% 8.0% 0% 14.3% 0% 2.6% 0%

<sup>\*</sup>L: Left, R: Right, T: Thru, U: U-Turn

Fri Jan 19, 2024 Full Length (7 AM-9 AM) Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969



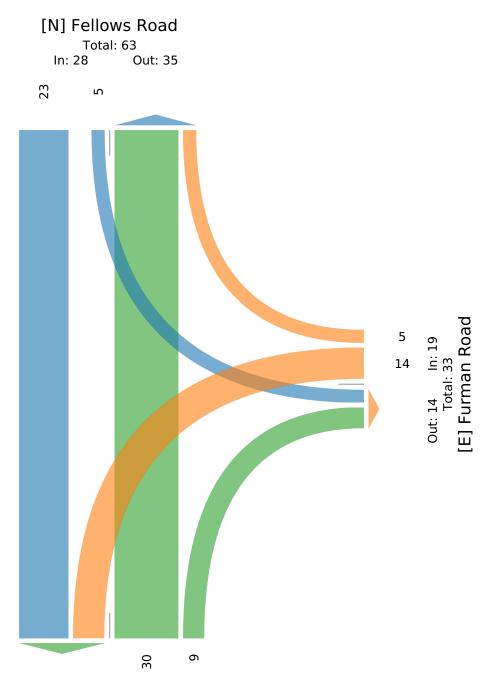
Out: 96 In: 76 Total: 172 [S] Fellows Road

Fri Jan 19, 2024 Forced Peak (7:15 AM - 8:15 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969

Leg	Fellows Road	l			Furman Road				Fellows Road				
Direction	Southbound				Westbound				Northbound				
Time	Т	L	U	Арр	R	L	U	Арр	R	Т	U	Арр	Int
2024-01-19 7:15AM	3	2	0	5	2	3	0	5	0	12	0	12	22
7:30AM	5	1	0	6	1	3	0	4	5	8	0	13	23
7:45AM	7	1	0	8	1	4	0	5	0	7	0	7	20
8:00AM	8	1	0	9	1	4	0	5	4	3	0	7	21
Total	23	5	0	28	5	14	0	19	9	30	0	39	86
% Approach	82.1%	17.9%	0%	-	26.3%	73.7%	0%	-	23.1%	76.9%	0%	-	-
% Total	26.7%	5.8%	0%	32.6%	5.8%	16.3%	0%	22.1%	10.5%	34.9%	0%	45.3%	-
PHF	0.719	0.625	-	0.778	0.625	0.875	-	0.950	0.450	0.625	-	0.750	0.935
Lights and Motorcycles	23	3	0	26	5	13	0	18	7	30	0	37	81
% Lights and Motorcycles	100%	60.0%	0%	92.9%	100%	92.9%	0%	94.7%	77.8%	100%	0%	94.9%	94.2%
Heavy	0	2	0	2	0	1	0	1	2	0	0	2	5

<sup>\*</sup>L: Left, R: Right, T: Thru, U: U-Turn

Fri Jan 19, 2024 Forced Peak (7:15 AM - 8:15 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969



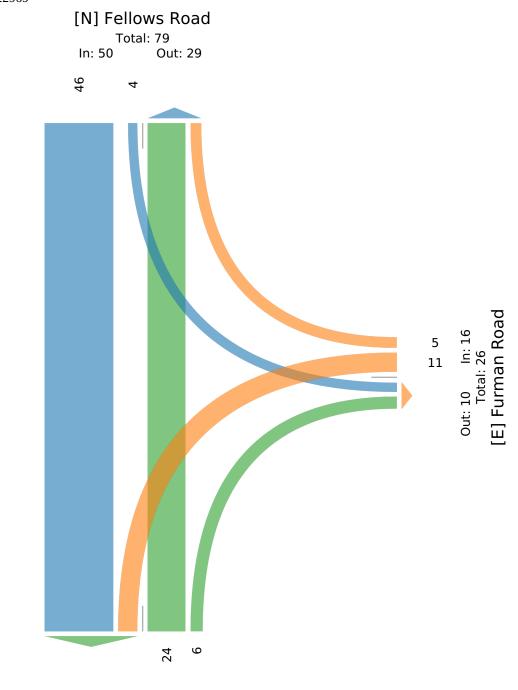


Fri Jan 19, 2024 AM Peak (8 AM - 9 AM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969

Leg	Fellows Road	1			Furman Road	1			Fellows Road				
Direction	Southbound				Westbound				Northbound				
Time	Т	L	U	Арр	R	L	U	Арр	R	Т	U	Арр	Int
2024-01-19 8:00AM	8	1	0	9	1	4	0	5	4	3	0	7	21
8:15AM	14	0	0	14	1	3	0	4	0	2	0	2	20
8:30AM	13	1	0	14	1	2	0	3	1	9	0	10	27
8:45AM	11	2	0	13	2	2	0	4	1	10	0	11	28
Total	46	4	0	50	5	11	0	16	6	24	0	30	96
% Approach	92.0%	8.0%	0%	-	31.3%	68.8%	0%	-	20.0%	80.0%	0%	-	-
% Total	47.9%	4.2%	0%	52.1%	5.2%	11.5%	0%	16.7%	6.3%	25.0%	0%	31.3%	-
PHF	0.821	0.500	-	0.893	0.625	0.688	-	0.800	0.375	0.600	-	0.682	0.857
Lights and Motorcycles	42	4	0	46	4	10	0	14	5	24	0	29	89
% Lights and Motorcycles	91.3%	100%	0%	92.0%	80.0%	90.9%	0%	87.5%	83.3%	100%	0%	96.7%	92.7%
Heavy	4	0	0	4	1	1	0	2	1	0	0	1	7
% Heavy	8.7%	0%	0%	8.0%	20.0%	9.1%	0%	12.5%	16.7%	0%	0%	3.3%	7.3%

\*L: Left, R: Right, T: Thru, U: U-Turn

Fri Jan 19, 2024 AM Peak (8 AM - 9 AM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149375, Location: 43.115548, -77.422969



Out: 57 In: 30 Total: 87 [S] Fellows Road

Thu Jan 18, 2024 Full Length (4 PM-6 PM) Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

All Classes (Lights and Motorcycles, Heavy) All Movements

ID: 1149486, Location: 43.115548, -77.422969

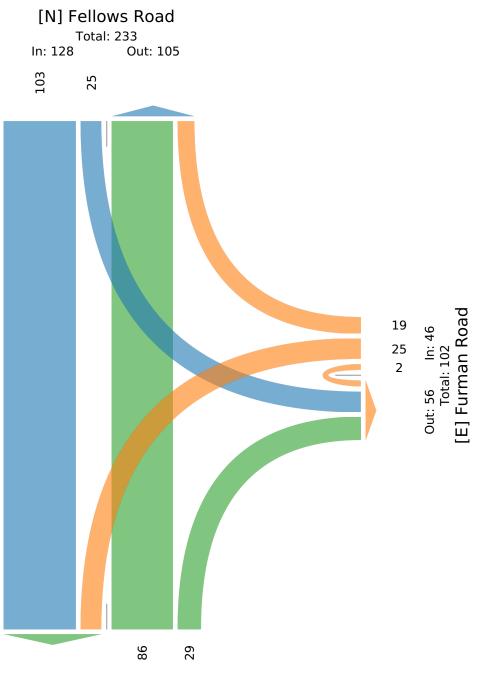
Leg	Fellows Road	1			Furman Roa	nd			Fellows Road	1			
Direction	Southbound				Westbound				Northbound				
Time	Т	L	U	Арр	R	L	U	Арр	R	Т	U	Арр	Int
2024-01-18 4:00PM	8	3	0	11	3	3	0	6	6	14	0	20	37
4:15PM	15	4	0	19	1	4	1	6	4	12	0	16	41
4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
Hourly Total	54	13	0	67	10	14	1	25	15	49	0	64	156
5:00PM	14	3	0	17	4	0	1	5	6	7	0	13	35
5:15PM	14	3	0	17	0	7	0	7	3	9	0	12	36
5:30PM	9	5	0	14	3	4	0	7	2	8	0	10	31
5:45PM	12	1	0	13	2	0	0	2	3	13	0	16	31
Hourly Total	49	12	0	61	9	11	1	21	14	37	0	51	133
Total	103	25	0	128	19	25	2	46	29	86	0	115	289
% Approach	80.5%	19.5%	0%	-	41.3%	54.3%	4.3%	-	25.2%	74.8%	0%	-	-
% Total	35.6%	8.7%	0%	44.3%	6.6%	8.7%	0.7%	15.9%	10.0%	29.8%	0%	39.8%	-
Lights and Motorcycles	103	25	0	128	19	23	0	42	29	86	0	115	285
% Lights and Motorcycles	100%	100%	0%	100%	100%	92.0%	0%	91.3%	100%	100%	0%	100%	98.6%
Heavy	0	0	0	0	0	2	2	4	0	0	0	0	4
% Heavy	0%	0%	0%	0%	0%	8.0%	100%	8.7%	0%	0%	0%	0%	1.4%

Thu Jan 18, 2024

Full Length (4 PM-6 PM) All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969





Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

Thu Jan 18, 2024 PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969

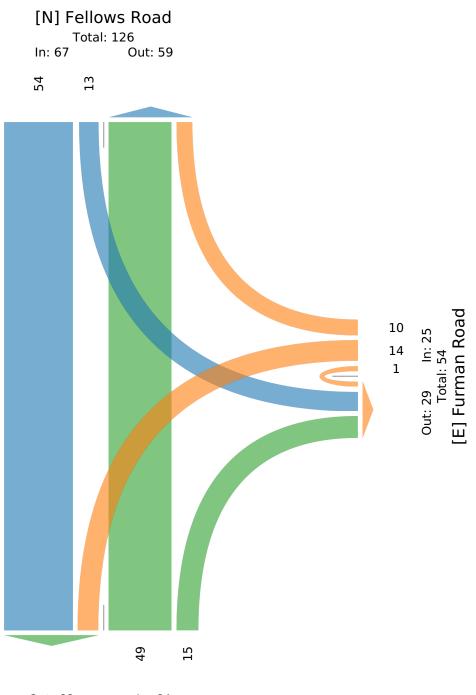
Leg	Fellows Road	1			Furman Roa	ıd			Fellows Roa	d			
Direction	Southbound				Westbound				Northbound				
Time	Т	L	U	Арр	R	L	U	Арр	R	Т	U	Арр	Int
2024-01-18 4:00PM	8	3	0	11	3	3	0	6	6	14	0	20	37
4:15PM	15	4	0	19	1	4	1	6	4	12	0	16	41
4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
Total	54	13	0	67	10	14	1	25	15	49	0	64	156
% Approach	80.6%	19.4%	0%	-	40.0%	56.0%	4.0%	-	23.4%	76.6%	0%	-	-
% Total	34.6%	8.3%	0%	42.9%	6.4%	9.0%	0.6%	16.0%	9.6%	31.4%	0%	41.0%	-
PHF	0.711	0.813	-	0.761	0.625	0.700	0.250	0.893	0.625	0.875	-	0.800	0.848
Lights and Motorcycles	54	13	0	67	10	12	0	22	15	49	0	64	153
% Lights and Motorcycles	100%	100%	0%	100%	100%	85.7%	0%	88.0%	100%	100%	0%	100%	98.1%
Heavy	0	0	0	0	0	2	1	3	0	0	0	0	3
% Heavy	0%	0%	0%	0%	0%	14.3%	100%	12.0%	0%	0%	0%	0%	1.9%

Thu Jan 18, 2024 PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy)

All Movements

ID: 1149486, Location: 43.115548, -77.422969



Out: 68 In: 64 Total: 132 [S] Fellows Road

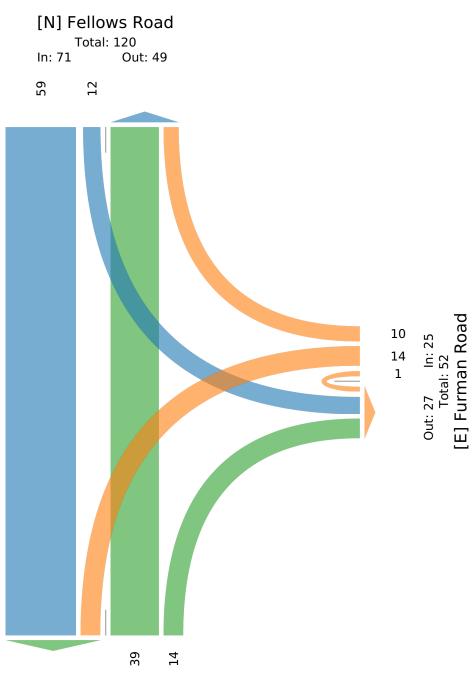
Thu Jan 18, 2024 Forced Peak (4:30 PM - 5:30 PM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149486, Location: 43.115548, -77.422969

Leg	Fellows Road	i			Furman Roa	d			Fellows Road	d			
Direction	Southbound				Westbound				Northbound				
Time	Т	L	U	Арр	R	L	U	Арр	R	Т	U	Арр	Int
2024-01-18 4:30PM	12	3	0	15	4	2	0	6	2	9	0	11	32
4:45PM	19	3	0	22	2	5	0	7	3	14	0	17	46
5:00PM	14	3	0	17	4	0	1	5	6	7	0	13	35
5:15PM	14	3	0	17	0	7	0	7	3	9	0	12	36
Total	59	12	0	71	10	14	1	25	14	39	0	53	149
% Approach	83.1%	16.9%	0%	-	40.0%	56.0%	4.0%	-	26.4%	73.6%	0%	-	-
% Total	39.6%	8.1%	0%	47.7%	6.7%	9.4%	0.7%	16.8%	9.4%	26.2%	0%	35.6%	-
PHF	0.776	1.000	-	0.807	0.625	0.500	0.250	0.893	0.583	0.696	-	0.779	0.810
Lights and Motorcycles	59	12	0	71	10	14	0	24	14	39	0	53	148
% Lights and Motorcycles	100%	100%	0%	100%	100%	100%	0%	96.0%	100%	100%	0%	100%	99.3%
Heavy	0	0	0	0	0	0	1	1	0	0	0	0	1
% Heavy	0%	0%	0%	0%	0%	0%	100%	4.0%	0%	0%	0%	0%	0.7%



Thu Jan 18, 2024 Forced Peak (4:30 PM - 5:30 PM) All Classes (Lights and Motorcycles, Heavy) Provided by: Passero Associates 242 West Main Street, Suite 100, Rochester, NY, 14614, US

All Movements ID: 1149486, Location: 43.115548, -77.422969

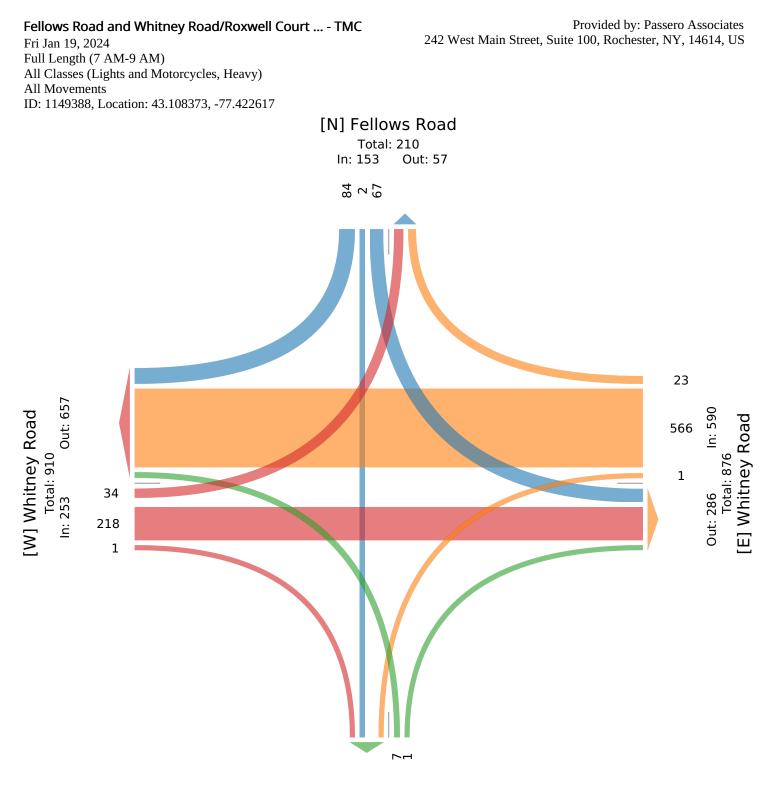


Out: 73 In: 53 Total: 126 [S] Fellows Road

Full Length (7 AM-9 AM) All Classes (Lights and Motorcycles, Heavy) All Movements

ID: 1149388, Location: 43.108373, -77.422617

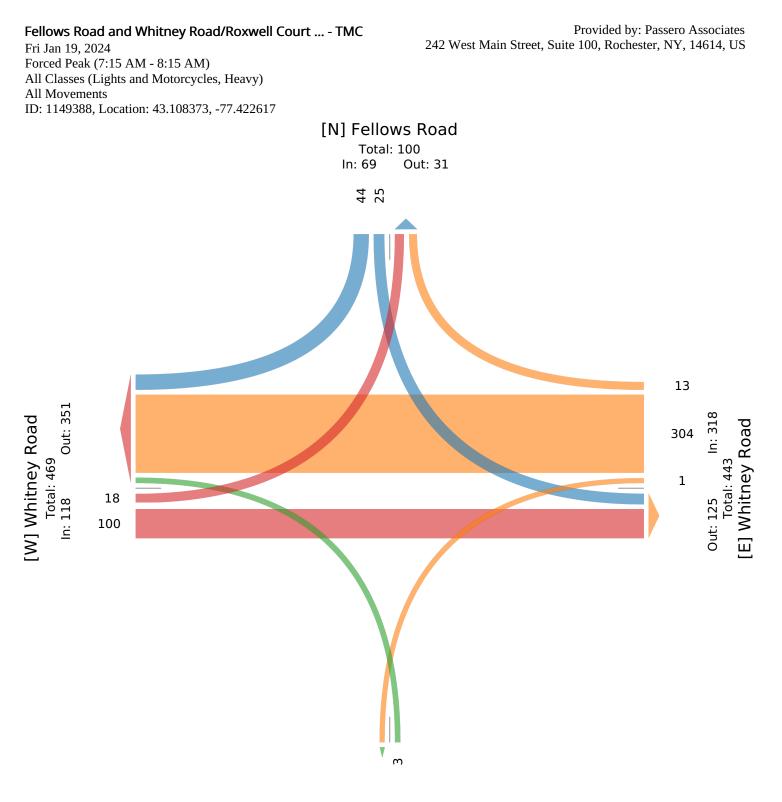
Leg	Fellows	Road				Whitne	y Road				Roxwel	l Co	urt			Whitne	y Road				
Direction	Southbo	ound				Westbo	und				Northbo	ound				Eastbo	und				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-19 7:00AM	6	1	11	0	18	3	75	0	0	78	0	0	0	0	0	0	20	5	0	25	121
7:15AM	10	0	5	0	15	4	82	0	0	86	0	0	0	0	0	0	20	3	0	23	124
7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
Hourly Total	41	1	29	0	71	15	306	1	0	322	0	0	1	0	1	0	90	16	0	106	500
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
8:15AM	17	1	9	0	27	1	61	0	0	62	1	0	1	0	2	0	32	2	0	34	125
8:30AM	9	0	14	0	23	3	61	0	0	64	0	0	3	0	3	1	34	4	0	39	129
8:45AM	8	0	8	0	16	3	65	0	0	68	0	0	0	0	0	0	32	5	0	37	121
Hourly Total	43	1	38	0	82	8	260	0	0	268	1	0	6	0	7	1	128	18	0	147	504
Total	84	2	67	0	153	23	566	1	0	590	1	0	7	0	8	1	218	34	0	253	1004
% Approach	54.9%	1.3%	43.8%	0%	-	3.9%	95.9%	0.2%	0%	-	12.5%	0%	87.5%	0%	-	0.4%	86.2%	13.4%	0%	-	-
% Total	8.4%	0.2%	6.7%	0%	15.2%	2.3%	56.4%	0.1%	0%	58.8%	0.1%	0%	0.7%	0%	0.8%	0.1%	21.7%	3.4%	0%	25.2%	-
Lights and Motorcycles	80	2	62	0	144	20	555	1	0	576	1	0	6	0	7	1	195	32	0	228	955
% Lights and Motorcycles	95.2%	100%	92.5%	0%	94.1%	87.0%	98.1%	100%	0%	97.6%	100%	0%	85.7%	0%	87.5%	100%	89.4%	94.1%	0%	90.1%	95.1%
Heavy	4	0	5	0	9	3	11	0	0	14	0	0	1	0	1	0	23	2	0	25	49
% Heavy	4.8%	0%	7.5%	0%	5.9%	13.0%	1.9%	0%	0%	2.4%	0%	0%	14.3%	0%	12.5%	0%	10.6%	5.9%	0%	9.9%	4.9%



Out: 4 In: 8 Total: 12 [S] Roxwell Court

Fri Jan 19, 2024 Forced Peak (7:15 AM - 8:15 AM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149388, Location: 43.108373, -77.422617

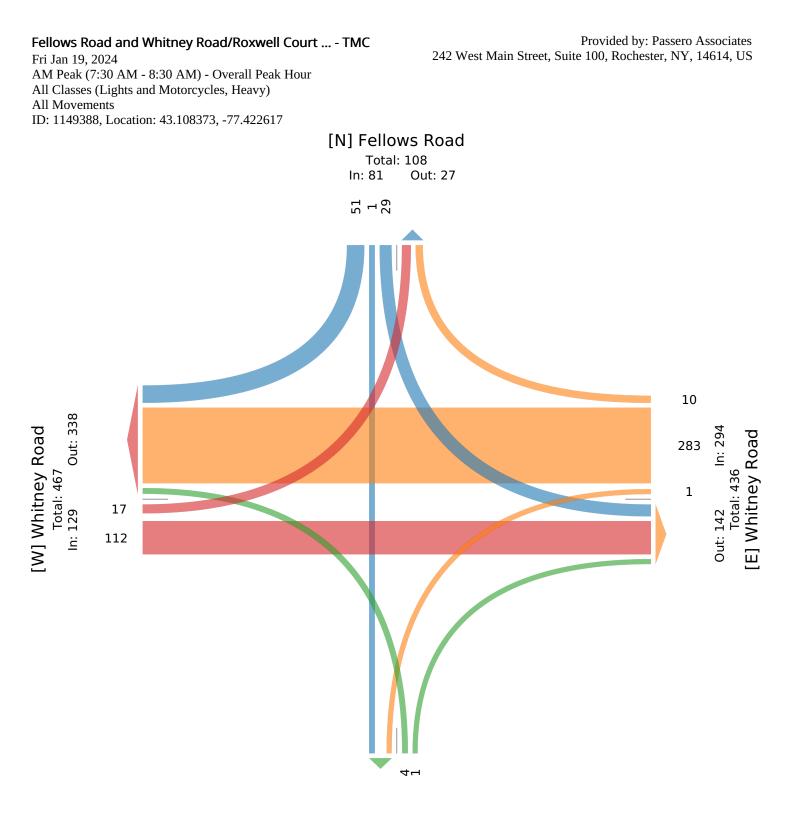
Leg	Fellows	Roa	d			Whitney	r Road				Rox	well	Court			Whit	ney Roa	d			
Direction	Southbo	ound				Westbou	ınd				Nor	thbou	und			Easth	oound				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-19 7:15AM	10	0	5	0	15	4	82	0	0	86	0	0	0	0	0	0	20	3	0	23	124
7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
Total	44	0	25	0	69	13	304	1	0	318	0	0	3	0	3	0	100	18	0	118	508
% Approach	63.8%	0%	36.2%	0%	-	4.1%	95.6%	0.3%	0%	-	0%	0%	100%	0%	-	0%	84.7%	15.3%	0%	-	-
% Total	8.7%	0%	4.9%	0%	13.6%	2.6%	59.8%	0.2%	0%	62.6%	0%	0%	0.6%	0%	0.6%	0%	19.7%	3.5%	0%	23.2%	-
PHF	0.647	-	0.893	-	0.719	0.650	0.854	0.250	-	0.837	-	-	0.375	-	0.375	-	0.833	0.643	-	0.797	0.864
Lights and Motorcycles	42	0	25	0	67	11	298	1	0	310	0	0	3	0	3	0	91	16	0	107	487
% Lights and Motorcycles	95.5%	0%	100%	0%	97.1%	84.6%	98.0%	100%	0%	97.5%	0%	0%	100%	0%	100%	0%	91.0%	88.9%	0%	90.7%	95.9%
Heavy	2	0	0	0	2	2	6	0	0	8	0	0	0	0	0	0	9	2	0	11	21
% Heavy	4.5%	0%	0%	0%	2.9%	15.4%	2.0%	0%	0%	2.5%	0%	0%	0%	0%	0%	0%	9.0%	11.1%	0%	9.3%	4.1%



Out: 1 In: 3 Total: 4 [S] Roxwell Court

Fri Jan 19, 2024 AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149388, Location: 43.108373, -77.422617

Leg	Fellows	Road				Whitney	/ Road				Roxwell	Cou	ırt			Whi	tney Roa	ad			
Direction	Southbo	ound				Westbo	und				Northbo	und				East	bound				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-19 7:30AM	17	0	7	0	24	5	89	1	0	95	0	0	1	0	1	0	21	6	0	27	147
7:45AM	8	0	6	0	14	3	60	0	0	63	0	0	0	0	0	0	29	2	0	31	108
8:00AM	9	0	7	0	16	1	73	0	0	74	0	0	2	0	2	0	30	7	0	37	129
8:15AM	17	1	9	0	27	1	61	0	0	62	1	0	1	0	2	0	32	2	0	34	125
Total	51	1	29	0	81	10	283	1	0	294	1	0	4	0	5	0	112	17	0	129	509
% Approach	63.0%	1.2%	35.8%	0%	-	3.4%	96.3%	0.3%	0%	-	20.0%	0%	80.0%	0%	-	0%	86.8%	13.2%	0%	-	-
% Total	10.0%	0.2%	5.7%	0%	15.9%	2.0%	55.6%	0.2%	0%	57.8%	0.2%	0%	0.8%	0%	1.0%	0%	22.0%	3.3%	0%	25.3%	-
PHF	0.750	0.250	0.806	-	0.750	0.500	0.795	0.250	-	0.774	0.250	-	0.500	-	0.625	-	0.875	0.607	-	0.872	0.866
Lights and Motorcycles	48	1	28	0	77	8	277	1	0	286	1	0	4	0	5	0	101	15	0	116	484
% Lights and Motorcycles	94.1%	100%	96.6%	0%	95.1%	80.0%	97.9%	100%	0%	97.3%	100%	0%	100%	0%	100%	0%	90.2%	88.2%	0%	89.9%	95.1%
Heavy	3	0	1	0	4	2	6	0	0	8	0	0	0	0	0	0	11	2	0	13	25
% Heavy	5.9%	0%	3.4%	0%	4.9%	20.0%	2.1%	0%	0%	2.7%	0%	0%	0%	0%	0%	0%	9.8%	11.8%	0%	10.1%	4.9%



Out: 2 In: 5 Total: 7 [S] Roxwell Court

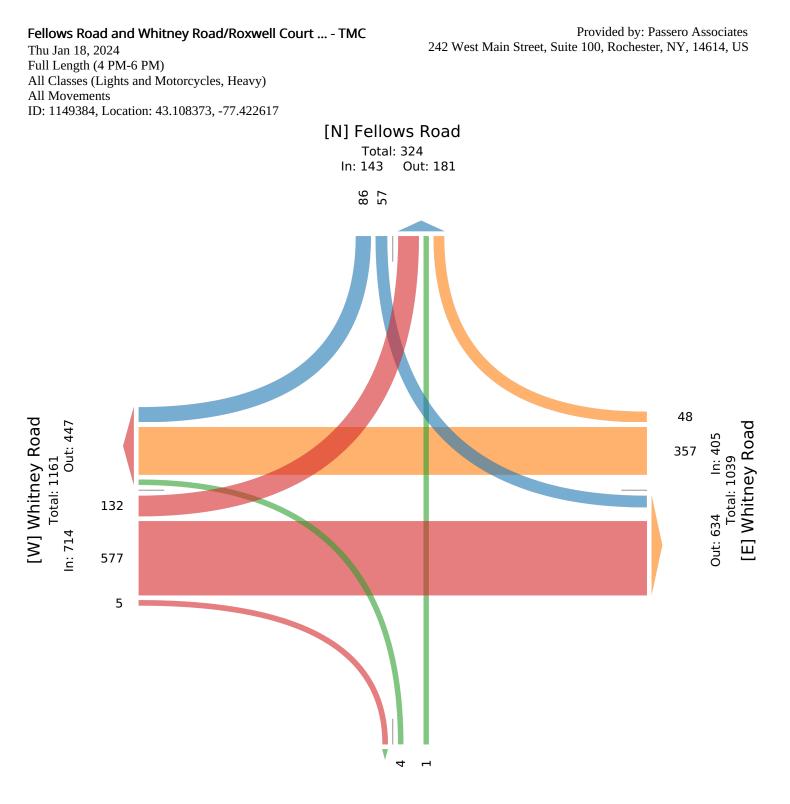
Full Length (4 PM-6 PM) All Classes (Lights and Motorcycles, Heavy)

All Movements

Thu Jan 18, 2024

ID: 1149384, Location: 43.108373, -77.422617

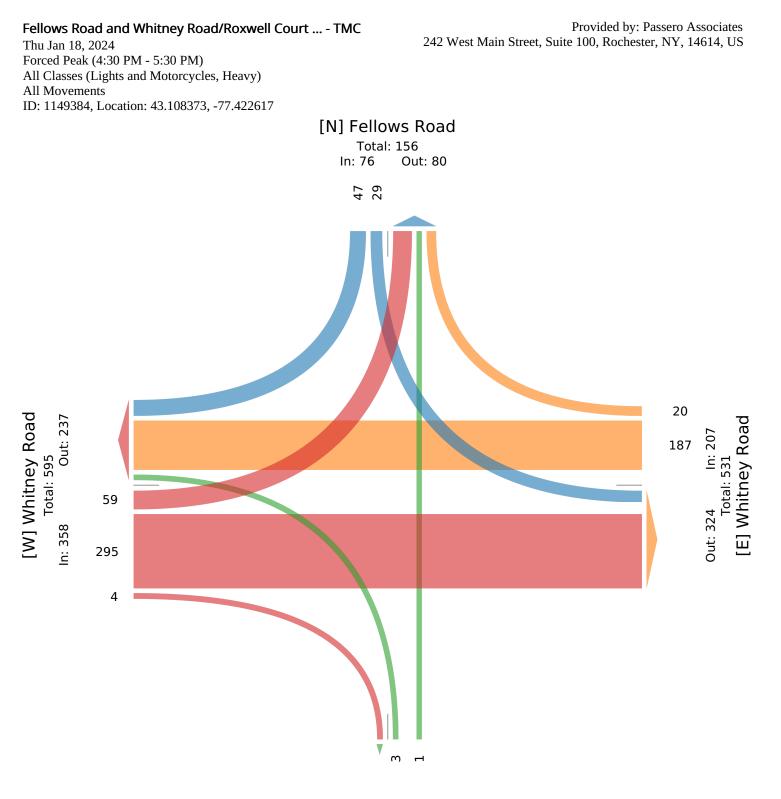
Leg	Fellows	Roa	d			Whitney	7 Road				Rox	well Cou	ırt			Whitne	y Road				
Direction	Southbo	ound				Westbo	und				Nort	hbound				Eastbou	und				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-18 4:00PM	8	0	7	0	15	10	43	0	0	53	0	0	0	0	0	0	64	16	0	80	148
4:15PM	13	0	10	0	23	7	46	0	0	53	0	0	1	0	1	0	61	14	0	75	152
4:30PM	13	0	6	0	19	5	37	0	0	42	0	1	1	0	2	1	84	10	0	95	158
4:45PM	8	0	10	0	18	9	50	0	0	59	0	0	1	0	1	0	54	17	0	71	149
Hourly Total	42	0	33	0	75	31	176	0	0	207	0	1	3	0	4	1	263	57	0	321	607
5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	95	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
5:30PM	13	0	6	0	19	4	40	0	0	44	0	0	0	0	0	1	80	20	0	101	164
5:45PM	5	0	5	0	10	7	41	0	0	48	0	0	0	0	0	0	77	23	0	100	158
Hourly Total	44	0	24	0	68	17	181	0	0	198	0	0	1	0	1	4	314	75	0	393	660
Total	86	0	57	0	143	48	357	0	0	405	0	1	4	0	5	5	577	132	0	714	1267
% Approach	60.1%	0%	39.9%	0%	-	11.9%	88.1%	0%	0%	-	0%	20.0%	80.0%	0%	-	0.7%	80.8%	18.5%	0%	-	-
% Total	6.8%	0%	4.5%	0%	11.3%	3.8%	28.2%	0%	0%	32.0%	0%	0.1%	0.3%	0%	0.4%	0.4%	45.5%	10.4%	0%	56.4%	-
Lights and Motorcycles	85	0	56	0	141	47	352	0	0	399	0	1	4	0	5	5	574	132	0	711	1256
% Lights and Motorcycles	98.8%	0%	98.2%	0%	98.6%	97.9%	98.6%	0%	0%	98.5%	0%	100%	100%	0%	100%	100%	99.5%	100%	0%	99.6%	99.1%
Heavy	1	0	1	0	2	1	5	0	0	6	0	0	0	0	0	0	3	0	0	3	11
% Heavy	1.2%	0%	1.8%	0%	1.4%	2.1%	1.4%	0%	0%	1.5%	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.4%	0.9%



Out: 5 In: 5 Total: 10 [S] Roxwell Court

Thu Jan 18, 2024 Forced Peak (4:30 PM - 5:30 PM) All Classes (Lights and Motorcycles, Heavy) All Movements ID: 1149384, Location: 43.108373, -77.422617

Leg	Fellows	Roa	nd			Whitne	y Road				Rox	well Cou	ırt			Whitne	y Road				
Direction	Southbo	ound				Westbo	ound				Nort	hbound				Eastbou	ind				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-18 4:30PM	13	0	6	0	19	5	37	0	0	42	0	1	1	0	2	1	84	10	0	95	158
4:45PM	8	0	10	0	18	9	50	0	0	59	0	0	1	0	1	0	54	17	0	71	149
5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	95	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
Total	47	0	29	0	76	20	187	0	0	207	0	1	3	0	4	4	295	59	0	358	645
% Approach	61.8%	0%	38.2%	0%	-	9.7%	90.3%	0%	0%	-	0%	25.0%	75.0%	0%	-	1.1%	82.4%	16.5%	0%	-	-
% Total	7.3%	0%	4.5%	0%	11.8%	3.1%	29.0%	0%	0%	32.1%	0%	0.2%	0.5%	0%	0.6%	0.6%	45.7%	9.1%	0%	55.5%	-
PHF	0.618	-	0.725	-	0.792	0.556	0.806	-	-	0.848	-	0.250	0.750	-	0.500	0.500	0.878	0.776	-	0.923	0.881
Lights and Motorcycles	47	0	29	0	76	20	186	0	0	206	0	1	3	0	4	4	294	59	0	357	643
% Lights and Motorcycles	100%	0%	100%	0%	100%	100%	99.5%	0%	0%	99.5%	0%	100%	100%	0%	100%	100%	99.7%	100%	0%	99.7%	99.7%
Heavy	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Heavy	0%	0%	0%	0%	0%	0%	0.5%	0%	0%	0.5%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.3%



Out: 4 In: 4 Total: 8 [S] Roxwell Court

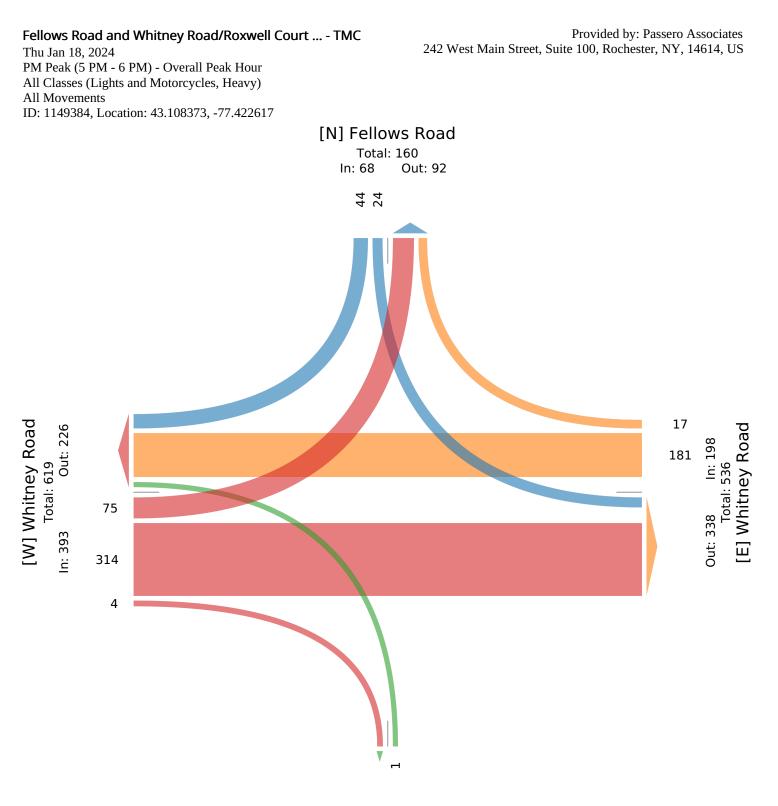
PM Peak (5 PM - 6 PM) - Overall Peak Hour All Classes (Lights and Motorcycles, Heavy)

All Movements

Thu Jan 18, 2024

ID: 1149384, Location: 43.108373, -77.422617

Leg	Fellows	Roa	d			Whitne	y Road				Rox	well	Court			Whitney	y Road				
Direction	Southbo	ound				Westbo	und				Nor	thbou	ind			Eastbou	ind				
Time	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	R	Т	L	U	Арр	Int
2024-01-18 5:00PM	7	0	8	0	15	3	42	0	0	45	0	0	0	0	0	1	75	19	0	<b>9</b> 5	155
5:15PM	19	0	5	0	24	3	58	0	0	61	0	0	1	0	1	2	82	13	0	97	183
5:30PM	13	0	6	0	19	4	40	0	0	44	0	0	0	0	0	1	80	20	0	101	164
5:45PM	5	0	5	0	10	7	41	0	0	48	0	0	0	0	0	0	77	23	0	100	158
Total	44	0	24	0	68	17	181	0	0	198	0	0	1	0	1	4	314	75	0	393	660
% Approach	64.7%	0%	35.3%	0%	-	8.6%	91.4%	0%	0%	-	0%	0%	100%	0%	-	1.0%	79.9%	19.1%	0%	-	-
% Total	6.7%	0%	3.6%	0%	10.3%	2.6%	27.4%	0%	0%	30.0%	0%	0%	0.2%	0%	0.2%	0.6%	47.6%	11.4%	0%	59.5%	-
PHF	0.579	-	0.750	-	0.708	0.607	0.780	-	-	0.811	-	-	0.250	-	0.250	0.500	0.957	0.815	-	0.973	0.902
Lights and Motorcycles	44	0	24	0	68	17	179	0	0	196	0	0	1	0	1	4	313	75	0	392	657
% Lights and Motorcycles	100%	0%	100%	0%	100%	100%	98.9%	0%	0%	99.0%	0%	0%	100%	0%	100%	100%	99.7%	100%	0%	99.7%	99.5%
Heavy	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
% Heavy	0%	0%	0%	0%	0%	0%	1.1%	0%	0%	1.0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0.3%	0.5%



Out: 4 In: 1 Total: 5 [S] Roxwell Court

# **APPENDIX B:** MISCELLANEOUS CALCULATIONS





# Fellows Road Properties, Town of Perinton, NY Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth
Penfield Rd	RT 250	Salt Rd				11,432			11,313			12,162	1.04%
Whitney Rd	CR18 PEFLD	CR 42	11,573			11,474			10,797				-1.15%
-												AVERAGE	-0.06%



	Fello	ws Road Prop	erties		
Intersection #1:	Fellows Rd	at Penfield Ro	ł		
Date of Count:	Thursday,	January 19, 20	024		
Number of Crashes:	5				
Number of Injuries:	3				
Number of Fatalities:	0				
Entering Vehicles (PM):	1421				
ADT:	14958				
Start Date:	August 31,	2018			
End Date:	August 31,	2023			
Number of Years:	5				
Intersection Type:	3 Legged				
Area Type:	Urban				
Control Type:	Sign 1-3 La	anes			
crash rate =		Number	of Crashes	x 1 Million	
	A	DT x 365 Day	s per Year x	Number of Y	ears
		5		1,000,000	)
		5	х		
crash rate =	14958	x	x 365	x	5
crash rate =			365		5 Injury Rate
crash rate = Study Intersection		X	365 Fata	x	-

cr/mve = crashes per million entering vehicles \* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Fello	ows Road Prop	erties		
Intersection #2:	Fellows Ro	i at Furman Ro			
Date of Count:	Thursday,	January 19, 20	024		
Number of Crashes:	0				
Number of Injuries:	0				
Number of Fatalities:	0				
Entering Vehicles (PM):	164				
ADT:	1726				
Start Date:	August 31	, 2018			
End Date:	August 31	, 2023			
Number of Years:	5				
Intersection Type:	3 Legged				
Area Type:	Urban				
Control Type:	Sign 1-3 L	anes			
		Number	of Crashes	x 1 Million	
crash rate =		ADT x 365 Day	s per Year x	Number of	Years
araah rata -		0	x	1,000,00	0
crash rate =	1726	х	365	х	5
	Cra	sh Rate	Fata	lity Rate	Injury Rate
Study Intersection	0.00	cr/mve		0IV/0!	#DIV/0!
Statewide Average*	0.19	cr/mve			

cr/mve = crashes per million entering vehicles \* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

			Direction		
Туре	Northbound	Southbound	Eastbound	Westbound	Unknown
Left turn	1				
Rear-end				1	
vertaking					
ight Angle					
light Turn					
lead On				1	
ide-swipe					
ixed Object	1				
acking					
ther					
ike/Ped					
nimal				1	
otals	2	0	0	3	0
DO	2				
njury	3				
njury + PDO					
atal					
IR					
otal	5	-			

			Direction			
Туре	Northbound	Southbound	Eastbound	Westbound	Unknown	Tota
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	0	0	0	0	0
PDO						
Injury						
Injury + PDO						
Fatal						
NR						
Total	0					



PROJECT: LOCATION: PEAK HOUR:

## Fellows Road Properties Town of Perinton, NY

AM Peak

				Num of yrs 5						
LOCATION		2024	Seasonality	Bkgd			Properties		Total Site	Full Build
NUMBER	INTERSECTION DESCRIPTION	Existing Volumes	Adjustment	Volumes 0.5%	Enter Dist. %	Exit Dist. %	Trips IN 38	Trips OUT 114	Trips	Volumes
1	Fellows Rd/									
-	Perinton Rd SR									
	ST									
	SL									
	WR WT	674	748	767						767
	WL	2	2	2	28%		11		11	13
	NR NT	7	8	8		28%		32	32	40
	NL	53	59	60		40%		46	46	106
-	ER	26	29	30	40%		15		15	45
	ET EL	222	246	253						253
2	Fellows Rd/									
_	Proposed Driveway									
	SR ST	30	33	34	5%		2		2	36
	SL	50		01	63%		24		24	24
	WR					63%		72	72	72
	WT WL					28%		32	32	32
	NR				28%		11		11	11
	NT	35	39	40		5%		6	6	46
-	NL ER									
	ET									
3	EL Fellows Rd/									
3	Furman Rd									
	SR									
	ST SL	25 5	28 6	28 6	5%	28%	2	32	32 2	60 8
-	WR	5	6	6	3%	5%	2	6	6	° 12
	WT									
-	WL NR	14 9	16 10	16 10	3%	3%	1	3	3	19 11
	NT	30	33	34	28%		11		11	45
-	NL									
	ER ET									
	EL									
4	Furman Rd/									
-	Proposed Driveway SR					8%		9	9	9
	ST								-	-
F	SL WR				1%	1%	0	1	1	1
	WT	19	21	22	170		0		U	22
	WL									
	NR NT									
	NL									
	ER									
	ET EL	14	16	16	8%		3		3	16 3
5	Fellows Rd- Roxwell Ct				0.0		Ŭ			
	Whitney Rd		40	50		4001		0.1	0.1	74
	SR ST	44	49	50		19%		21	21	71
	SL	25	28	28		12%		14	14	42
l [	WR	13	14	15	12%		5		5	20
	WT WL	304 1	337 1	346 1						346 1
	NR					1	1			
	NT NL	3	3	3						3
	ER	3	3	3						3
	ET	100	111	114			_			114
	EL	18	20	20	19%		7		7	27



## PROJECT: LOCATION: PEAK HOUR:

## Fellows Road Properties Town of Perinton,NY

PM Peak

		2024		5 Bkgd		Fellows Ro	Properties		-	
LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing	Seasonality Adjustment	Volumes	Enter	Exit	Trips IN	Trips OUT	Total Site Trips	Full Build Volumes
1	Fellows Rd/	Volumes	,	0.5%	Dist. %	Dist. %	117	72		
	Penfield Rd									
	SR ST									
	SL									
F	WR									
	WT WL	437 14	485 16	497 16	28%		33		33	497 49
ŀ	NR	14	10	10	2070	28%		20	20	31
	NT									
F	NL ER	42 79	47 88	48 90	40%	40%	47	29	29 47	77 137
	ET	697	774	793	1070					793
-	EL									
2	Fellows Rd/ Proposed Driveway									
F	SR									
	ST	71	79	81	5%		6		6	87
F	SL WR				63%	63%	74	45	74 45	74 45
	WT					0070			10	10
	WL					28%		20	20	20
	NR NT	49	54	56	28%	5%	33	4	33 4	33 60
	NL	40	04	00		070		-	-	00
F	ER									
	ET EL									
3	Fellows Rd/									
	Furman Rd									
	SR ST	59	65	67		28%		20	20	07
	SL	59 12	13	67 14	5%	28%	6	20	20 6	87 20
F	WR	10	11	11		5%	-	4	4	15
	WT		10	10						10
F	WL NR	14 14	16 16	16 16	3%	3%	3	2	2 3	18 19
	NT	39	43	44	28%		33		33	77
	NL									
	ER ET									
	EL									
4	Furman Rd/									
F	Proposed Driveway SR					8%		6	6	6
	ST					070		0	0	0
L	SL					1%		1	1	1
	WR WT	24	27	27	1%		1		1	1 27
	WL	24	21	21						21
Γ	NR									
	NT NL									
F	ER									
	ET	26	29	30	0.51					30
5	EL Fellows Rd- Roxwell Ct				8%		9		9	9
3	Whitney Rd									
ľ	SR	47	52	53		19%		14	14	67
	ST SL	29	32	33		12%		8	8	41
ŀ	WR	29	22	23	12%	12/0	14	5	14	37
	WT	187	208	213						213
F	WL NR									
	NR NT	1	1	1						1
	NL	3	3	3						3
Γ	ER	4	4	5						5
	ET EL	295 59	327 65	336 67	19%		22		22	336 89

		PROJECT DETAILS						
Project Name:	Fellows Rd Properties	Type of Project:						
Project No:		City:						
Country:		Built-up Area(Sq.ft):						
Analyst Name:	Amy Dake	Clients Name:						
Date:	1/22/2024	ZIP/Postal Code:						
State/Province:		No. of Scenarios: 2						
Analysis Region:								
	SCENARIO SUMMARY							

Scenarios Name	Name	No. of Land Uses	Phases of	No. of Years to Project	ect User Group	Estimated New Vehicle Trips		
	Name	No. of Land Oses	Development	Traffic	User Group	Entry	Exit	Total
Scenario - 1	AM Peak	3	1	0		38	114	152
Scenario - 2	PM Peak	3	1	0		117	72	189

# Scenario - 1 Scenario Name: AM Peak User Group: Dev. phase: 1 No. of Years to Project Analyst Note: Traffic :

Warning:

### VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
			JIZE	Time Feriou	Rate/Equation	Split%	Split%	Total
210 - Single-Family Detached Housing	General	Dwelling Units	106	Weekday, Peak Hour of	Best Fit (LOG)	20	59	79
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban	Dweiling Units		Adjacent Street Traffic,	Ln(T) =0.91Ln(X) + 0.12	25%	75%	/9
215 - Single-Family Attached Housing	General	Dwelling Units	00	Weekday, Peak Hour of	Best Fit (LIN)	10	31	41
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban		90	Adjacent Street Traffic,	T = 0.52(X) - 5.70	25%	75%	41
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units 28	20	Weekday, Peak Hour of	Best Fit (LIN)	8	24	22
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban		28	Adjacent Street Traffic,	T = 0.31(X) + 22.85	24%	76%	32

#### VEHICLE TO PERSON TRIP CONVERSION

#### BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Ve	hicle Mode Share	Baseline Site Veh	icle Occupancy	Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
210 - Single-Family Detached Housing	100	100	1	1	25	75
215 - Single-Family Attached Housing	100	100	1	1	25	75
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76

#### **ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Tri	ps by Vehicle	Person Trips by	Other Modes	Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
210 - Single-Family Detached Housing	20	59	0	0	20	59
	79		0		79	
215 - Single-Family Attached Housing	10	31	0	0	10	31
215 - Single-Failing Attached Housing	41		0		41	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	24	0	0	8	24
	32		0		32	

#### NEW VEHICLE TRIPS

Land Use		New Vehicle Trips			
	Entry	Exit	Total		
210 - Single-Family Detached Housing	20	59	79		
215 - Single-Family Attached Housing	10	31	41		
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	8	24	32		

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	38	114	152
External Vehicle Trips	38	114	152
New Vehicle Trips	38	114	152

# Scenario Name: PM Peak User Group: Dev. phase: 1 No. of Years to Project Traffic : Analyst Note: Image: Comparison of the second second

# Warning:

## VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
			3120	Time Feriou	Rate/Equation	Split%	Split%	Total
210 - Single-Family Detached Housing	General	Dwelling Units	106	Weekday, Peak Hour of	Best Fit (LOG)	66	39	105
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.94Ln(X) + 0.27	63%	37%	105
215 - Single-Family Attached Housing	General	Dwelling Units	90	Weekday, Peak Hour of	Best Fit (LIN)	30	21	51
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban	Dweining Offics		Adjacent Street Traffic,	T = 0.60(X) - 3.93	59%	41%	51
220 - Multifamily Housing (Low-Rise) - Not Close	General	Dwelling Units 28	20	Weekday, Peak Hour of	Best Fit (LIN)	21	12	22
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban		28	Adjacent Street Traffic,	T = 0.43(X) + 20.55	63%	37%	33

#### VEHICLE TO PERSON TRIP CONVERSION

#### BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
210 - Single-Family Detached Housing	100	100	1	1	63	37
215 - Single-Family Attached Housing	100	100	1	1	59	41
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	63	37

#### **ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
210 Single Family Datashed Usuring	66	39	0	0	66	39
210 - Single-Family Detached Housing	105		0		105	
DATE - Clarada Francisco Attacaba el Manusica	30	21	0	0	30	21
215 - Single-Family Attached Housing	51		0		51	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	0	0	21	12
220 - Multianning Housing (Low-Rise) - Not Close to Rail Transit		33	0		3	3

#### NEW VEHICLE TRIPS

Land Use		New Vehicle Trips		
	Entry	Exit	Total	
210 - Single-Family Detached Housing	66	39	105	
215 - Single-Family Attached Housing	30	21	51	
220 - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	21	12	33	

#### RESULTS

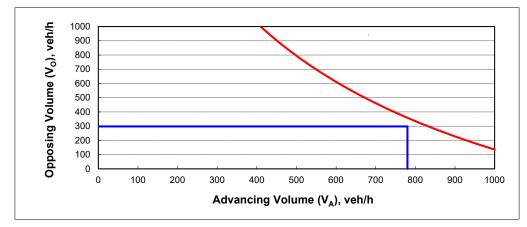
Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	117	72	189
External Vehicle Trips	117	72	189
New Vehicle Trips	117	72	189

INPUT	
Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (AM Peak Full Build)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	2%
Advancing volume (V <sub>A</sub> ), veh/h:	780
Opposing volume (V <sub>o</sub> ), veh/h:	298

## CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	298	780	0
780	298	780	298



Variable	Value			
Limiting advancing volume (V <sub>A</sub> ), veh/h:	833			
Guidance for determining the need for a major-road left-turn bay:				
Westbound (AM Peak Full Build) Left-turn treatment NOT warra	anted at Penfield Rd @ Fellows Rd Interse			

ρ	0.015
f =	0.79
Wait Time	1.194 s
Service Rate	977 veh/h
Arrival Rate	833 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

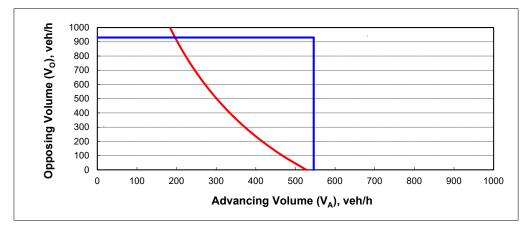
% LT veh.	2%	10%	15%	20%	40%
Vo	V <sub>A</sub>				
0	1178	503	422	377	308
100	1043	445	374	334	273
200	929	396	333	297	243
300	831	355	298	266	217
400	747	319	268	239	195
500	672	287	241	215	176
600	607	259	218	194	159
700	549	234	197	176	143
800	497	212	178	159	130
900	451	192	162	144	118
1000	409	175	147	131	107

INPUT	
Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (PM Peak Full Build)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	9%
Advancing volume (V <sub>A</sub> ), veh/h:	546
Opposing volume (V <sub>O</sub> ), veh/h:	930

## CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	930	546	0
546	930	546	930



Variable	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h:	196
Guidance for determining the need for a major-road left-turn bay:	
Westbound (PM Peak Full Build) Left-turn treatment warranted at Penfield Rd @ Fellows Rd Intersection	

ρ	0.015
f =	0.79
Wait Time	5.215 s
Service Rate	622 veh/h
Arrival Rate	196 veh/h

Vo	Time tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

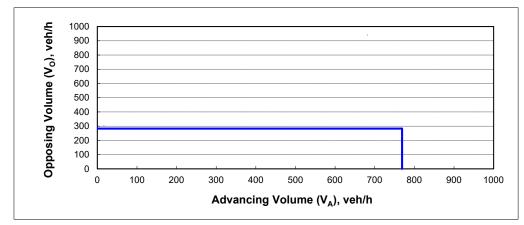
% LT veh.	9%	10%	15%	20%	40%
Vo	V <sub>A</sub>				
0	528	503	422	377	308
100	467	445	374	334	273
200	416	396	333	297	243
300	372	355	298	266	217
400	334	319	268	239	195
500	301	287	241	215	176
600	272	259	218	194	159
700	246	234	197	176	143
800	223	212	178	159	130
900	202	192	162	144	118
1000	183	175	147	131	107

INPUT	
Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (AM Peak Background)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	0%
Advancing volume (V <sub>A</sub> ), veh/h:	769
Opposing volume (V <sub>o</sub> ), veh/h:	283

## CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	283	769	0
769	283	769	283



Variable	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h:	2128
Guidance for determining the need for a major-road left-turn bay:	
Westbound (AM Peak Background) Left-turn treatment NOT warranted at Penfield Rd @ Fellows Rd Inter	

ρ	0.015
f =	0.79
Wait Time	1.125 s
Service Rate	987 veh/h
Arrival Rate	2128 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

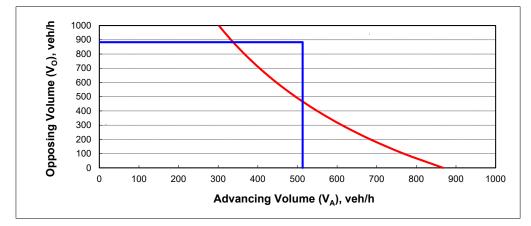
% LT veh.	0%	10%	15%	20%	40%
Vo	V <sub>A</sub>				
0	2961	503	422	377	308
100	2621	445	374	334	273
200	2335	396	333	297	243
300	2089	355	298	266	217
400	1876	319	268	239	195
500	1690	287	241	215	176
600	1526	259	218	194	159
700	1380	234	197	176	143
800	1250	212	178	159	130
900	1134	192	162	144	118
1000	1029	175	147	131	107

INPUT	
Variable	Value
Major Approach	Penfield Rd @ Fellows Rd
Approach	Westbound (PM Peak Background)
Design Speed Limit - MPH	50
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
Advancing volume (V <sub>A</sub> ), veh/h:	513
Opposing volume (V <sub>o</sub> ), veh/h:	883

## CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

PLOT - LINE 1		PLOT - LINE 2	
0	883	513	0
513	883	513	883



Variable	Value		
Limiting advancing volume (V <sub>A</sub> ), veh/h:	338		
Guidance for determining the need for a major-road left-turn bay:			
Westbound (PM Peak Background) Left-turn treatment warranted at Penfield Rd @ Fellows Rd Intersecti			

ρ	0.015
f =	0.79
Wait Time	4.821 s
Service Rate	643 veh/h
Arrival Rate	338 veh/h

Vo	Time_tw
0	0.0
100	0.4
200	0.8
300	1.2
400	1.7
500	2.2
600	2.8
700	3.5
800	4.2
900	5.0
1000	5.8

Vo	Serv_rate
0	1200
100	1121
200	1046
300	976
400	910
500	848
600	789
700	735
800	683
900	635
1000	590

% LT veh.	3%	10%	15%	20%	40%
Vo	V <sub>A</sub>				
0	867	503	422	377	308
100	768	445	374	334	273
200	684	396	333	297	243
300	612	355	298	266	217
400	550	319	268	239	195
500	495	287	241	215	176
600	447	259	218	194	159
700	404	234	197	176	143
800	366	212	178	159	130
900	332	192	162	144	118
1000	302	175	147	131	107

# **APPENDIX C:** LOS CALCULATIONS – EXISTING CONDITIONS



Lanes, Volumes, Tir 1: Fellows Rd & Per		۲d					Fellows Rd Properties 2024 Existing AM
	-	$\mathbf{\hat{z}}$	4	+	•	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ĥ			ę	Y		
Traffic Volume (vph)	246	29	2	748	59	8	
Future Volume (vph)	246	29	2	748	59	8	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.986				0.984		
Flt Protected					0.958		
Satd. Flow (prot)	1714	0	0	1863	1791	0	
Flt Permitted					0.958		
Satd. Flow (perm)	1714	0	0	1863	1791	0	
Link Speed (mph)	45			45	35		
Link Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%	
Adj. Flow (vph)	251	30	2	763	60	8	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	281	0	0	765	68	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	12		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 51.4%			IC	CU Level of	of Service A	
Analysis Period (min) 15							

HCM 6th TWSC 1: Fellows Rd & Penfield Rd Fellows Rd Properties 2024 Existing AM

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1+		TIDL	4	Y	
Traffic Vol. veh/h	246	29	2	748	59	8
Future Vol. veh/h	240	29	2	740	59	8
Conflicting Peds, #/hr	240	23	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length		-	_	-	0	-
Veh in Median Storage		-	-	0	0	-
Grade. %	, , 0		-	0	0	
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mymt Flow	251	30	2	763	60	8
	201	00	-	100	00	v
				-		
	Major1		Major2		Minor1	
Conflicting Flow All	0	0	281	0	1033	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	767	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1293	-	260	778
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1293	-	259	778
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	783	-
Stage 2	-	-	-	-	461	-
Ŭ						
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		21.9	
HCM LOS	U		0		21.9 C	
HCM LOS					U	
Minor Lane/Major Mvm	t I	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		281	-	-	1293	-
HCM Lane V/C Ratio		0.243	-	-	0.002	-
HCM Control Delay (s)		21.9	-	-	7.8	0
HCM Lane LOS		С	-	-	Α	Α
HCM 95th %tile Q(veh)		0.9	-	-	0	-

01/25/2024 Passero Associates Synchro 11 Report Page 1 01/25/2024 Passero Associates

		*	1	*	6	Ļ	
	*		•	-	-	•	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- M		ĥ			ન	
Traffic Volume (vph)	16	6	33	10	6	28	
Future Volume (vph)	16	6	33	10	6	28	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.965		0.968				
Flt Protected	0.964					0.992	
Satd. Flow (prot)	1681	0	1747	0	0	1767	
Flt Permitted	0.964					0.992	
Satd. Flow (perm)	1681	0	1747	0	0	1767	
Link Speed (mph)	40		30			35	
Link Distance (ft)	2113		694			582	
Travel Time (s)	36.0		15.8			11.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%	
Adj. Flow (vph)	17	6	35	11	6	30	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	23	0	46	0	0	36	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: 0	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 16.6%			IC	U Level	of Service /	A

HCM 6th TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2024 Existing AM

	_	_	_		
2.5					
WR	WRP	NRT	NRP	SBI	SBT
	TION		רוסא	ODL	<u>उठा</u> र्द
	6		10	6	€ 28
				-	20
					20
-		-	-		Free
					None
			-		-
-					0
		-			0
•		•			94
					0
	-	-			30
	0	00		0	00
	41		0	46	0
	-		-	-	-
	-	-	-	-	-
	6.2	-	-	4.5	-
	-	-	-	-	-
	-	-	-	-	-
3.563		-	-	2.56	-
907	1036	-	-	1350	-
	-	-	-	-	-
968	-	-	-	-	-
		-	-		-
902	1036	-	-	1350	-
902	-	-	-	-	-
969	-	-	-	-	-
963	-	-	-	-	-
		ND		CD.	
	_		_		_
		0		1.4	
A					
				0.01	SBT
nt	NBT	NBR\	VBLn1	SBL	SDI
ıt	NBT -	NBR\	VBLn1 935	3BL 1350	- 100
ıt	NBT -	-		1350	
nt	-	-	935	1350	-
	-	-	935 0.025	1350 0.005	-
	WBL           16           17           17           183           41           42           647           5.47           5.47           5.47           907           969           908           902           902           969           963           WB           8.9	WBL         WBR           16         6           16         6           16         6           0         0           0         -           94         94           7         0           17         6           Winor1         11           83         41           41         -           42         -           5.47         6.27           5.47         -           3.563         3.3           907         1036           908         -           902         1036           902         -           969         -           969         -           969         -           902         1036           903         -           904         -           905         -           906         -           966         -           967         -           968         -           905         -           965         -           966         -           967 </td <td>WBL         WBR         NBT           16         6         33           16         6         33           16         6         33           16         5         33           10         0         0           Stop         Stop         Free           0         -         -           0         -         0           94         94         94           7         0         0           17         6         35           Minor1         Major1         83           41         -         -           42         -         -           5.47         6.2         -           5.47         -         -           907         1036         -           907         1036         -           902         1036         -           992         -         -           969         -         -           969         -         -           969         -         -           969         -         -           969         -         -</td> <td>WBL         WBR         NBT         NBR           16         6         33         10           16         6         33         10           16         6         33         10           0         0         0         0           0         Stop         Free         Free           0         -         -         -           0         -         0         -           0         -         0         -           0         -         0         -           94         94         94         94           7         0         0         22           17         6         35         11           Minor1         Major1         1         1           42         -         -         -           5.47         -         -         -           5.47         -         -         -           907         1036         -         -           902         1036         -         -           902         1036         -         -           963         -         -         <t< td=""><td>WBL         WBR         NBT         NBR         SBL           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         0         0         0         0         0           0         0         0         0         0         0           0         -         -         -         -         -           94         94         94         94         94         94           7         0         0         22         40           17         6         35         11         6           Winorl         Majorl         Majorl         Majorl           83         41         0         0         46           41         -         -         -         -           647         6.2         -         -         150           907         1036         -         1350</td></t<></td>	WBL         WBR         NBT           16         6         33           16         6         33           16         6         33           16         5         33           10         0         0           Stop         Stop         Free           0         -         -           0         -         0           94         94         94           7         0         0           17         6         35           Minor1         Major1         83           41         -         -           42         -         -           5.47         6.2         -           5.47         -         -           907         1036         -           907         1036         -           902         1036         -           992         -         -           969         -         -           969         -         -           969         -         -           969         -         -           969         -         -	WBL         WBR         NBT         NBR           16         6         33         10           16         6         33         10           16         6         33         10           0         0         0         0           0         Stop         Free         Free           0         -         -         -           0         -         0         -           0         -         0         -           0         -         0         -           94         94         94         94           7         0         0         22           17         6         35         11           Minor1         Major1         1         1           42         -         -         -           5.47         -         -         -           5.47         -         -         -           907         1036         -         -           902         1036         -         -           902         1036         -         -           963         -         - <t< td=""><td>WBL         WBR         NBT         NBR         SBL           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         0         0         0         0         0           0         0         0         0         0         0           0         -         -         -         -         -           94         94         94         94         94         94           7         0         0         22         40           17         6         35         11         6           Winorl         Majorl         Majorl         Majorl           83         41         0         0         46           41         -         -         -         -           647         6.2         -         -         150           907         1036         -         1350</td></t<>	WBL         WBR         NBT         NBR         SBL           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         6         33         10         6           16         0         0         0         0         0           0         0         0         0         0         0           0         -         -         -         -         -           94         94         94         94         94         94           7         0         0         22         40           17         6         35         11         6           Winorl         Majorl         Majorl         Majorl           83         41         0         0         46           41         -         -         -         -           647         6.2         -         -         150           907         1036         -         1350

01/25/2024 Passero Associates Synchro 11 Report Page 3 01/25/2024 Passero Associates

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			4			4			4	
Traffic Volume (vph)	20	111	0	1	337	14	3	0	0	28	0	49
Future Volume (vph)	20	111	0	1	337	14	3	0	0	28	0	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt					0.995						0.914	
Flt Protected		0.992						0.950			0.982	
Satd. Flow (prot)	0	1724	0	0	1844	0	0	1805	0	0	1653	(
Flt Permitted		0.992						0.950			0.982	
Satd. Flow (perm)	0	1724	0	0	1844	0	0	1805	0	0	1653	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	23	129	0	1	392	16	3	0	0	33	0	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	0	409	0	0	3	0	0	90	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0	Ū		0	Ŭ		0	Ŭ		0	Ŭ
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
	ther											
Control Type: Unsignalized												

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2024 Existing AM

Intersection		_			_			_				
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		WDL	4		NDL	4		ODL	4	
Traffic Vol. veh/h	20	111	0	1	337	14	3	• <b>••</b> •	0	28	<b>•••</b>	49
Future Vol. veh/h	20	111	0	1	337	14	3	0	0	28	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage	. # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mvmt Flow	23	129	0	1	392	16	3	0	0	33	0	57
Major/Minor	Major1			Major2			Minor1		N	/linor2		
Conflicting Flow All	408	0	0	129	0	0	606	585	129	577	577	400
Stage 1	400	-	-	123	-	-	175	175	125	402	402	400
Stage 2		-	-	-	-	-	431	410	-	175	175	-
Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.25
Critical Hdwy Stg 1	-	-		-		-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.299	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.345
Pot Cap-1 Maneuver	1104	-	-	1469	-	-	412	426	926	431	430	643
Stage 1	-	-	-	-	-	-	832	758	-	629	604	-
Stage 2	-	-	-	-	-	-	607	599	-	832	758	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1104	-	-	1469	-	-	369	416	926	423	420	643
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	416	-	423	420	-
Stage 1	-	-	-	-	-	-	814	741	-	615	603	-
Stage 2	-	-	-	-	-	-	553	598	-	814	741	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0			14.8			13		
HCM LOS	1.0						14.0 B			B		
							5			5		
Miner Lene/Meier Marie			ED!	ГРТ	EDD		MDT	WDD	001.04			
Minor Lane/Major Mvm	it I	NBLn1 369	EBL 1104	EBT -	EBR	WBL 1469	WBT	WBR :	SBLn1 541		_	
Capacity (veh/h)			0.021			0.001						
HCM Lane V/C Ratio		0.009	0.021 8.3	- 0	-	0.001	-	-	0.165			
HCM Control Delay (s) HCM Lane LOS		14.8 B	8.3 A	A	-	7.5 A	A	-	B			
HCM Lane LOS HCM 95th %tile Q(veh)		B 0	0.1	A	-	A 0	A	-	в 0.6			
HOW SOUL WIRE O(VEN)		0	0.1	-	-	0	-	-	0.0			

01/25/2024 Passero Associates Synchro 11 Report Page 5 01/25/2024 Passero Associates

1: Fellows Rd & Per	nfield R	ld					2024 Existing PM
	-	$\mathbf{r}$	4	+	•	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ĥ			र्स	Y		
Traffic Volume (vph)	774	88	16	485	47	11	
Future Volume (vph)	774	88	16	485	47	11	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.986				0.975		
Flt Protected				0.998	0.961		
Satd. Flow (prot)	1857	0	0	1860	1780	0	
Flt Permitted				0.998	0.961		
Satd. Flow (perm)	1857	0	0	1860	1780	0	
Link Speed (mph)	45			45	35		
Link Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%	
Adj. Flow (vph)	860	98	18	539	52	12	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	958	0	0	557	64	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0	<b>J</b> .		0	12	<b>J</b> .	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop	-	
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 56.1%			10	CU Level o	of Service I	В

HCM 6th TWSC 1: Fellows Rd & Penfield Rd Fellows Rd Properties 2024 Existing PM

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	101 1	LDI	TTDL	ا <del>م</del> ان ا	Y	
Traffic Vol, veh/h	774	88	16	485	<b>T</b> 47	11
Future Vol. veh/h	774	88	16	485	47	11
Conflicting Peds, #/hr	0	00	0	405	47	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-		- 3i0p	None
Storage Length	-	NUTIE -	-	NUTIE -	- 0	NUTIE -
Veh in Median Storage		-	-	0	0	-
	s, # 0 0			0	0	
Grade, %	-	-	-	-	-	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	860	98	18	539	52	12
Major/Minor	Major1	I	Major2		Minor1	
Conflicting Flow All	0	0	958	0	1484	909
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1		-	-	-	5.4	
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	_	_	2.2		3.5	3.3
Pot Cap-1 Maneuver			726		139	336
	-	-	120	-	396	- 330
Stage 1	-	-	-	-	396 567	
Stage 2	-	-	-	-	567	-
Platoon blocked, %	-	-	=00	-	101	
Mov Cap-1 Maneuver	-	-	726	-	134	336
Mov Cap-2 Maneuver	-	-	-	-	134	-
Stage 1	-	-	-	-	396	-
Stage 2	-	-	-	-	547	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		45.5	
	0		0.5			
HCM LOS					E	
Minor Lane/Major Mvm	nt I	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		151	-	-	726	-
HCM Lane V/C Ratio		0.427	-			-
	)	45.5	-	-	10.1	0
HUM CONTROL Delay IS						
HCM Control Delay (s) HCM Lane LOS		F	-	-	B	Α
HCM Control Delay (s) HCM Lane LOS HCM 95th %tile Q(veh		E 1.9	-	-	B 0.1	A

01/25/2024 Passero Associates Synchro 11 Report Page 1 01/25/2024 Passero Associates

3: Fellows Road & F	-urman	Road					2024 Existing Pl
	∢	•	t	۲	1	Ļ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		ĥ			<del>با</del>	
Traffic Volume (vph)	16	11	43	16	13	65	
Future Volume (vph)	16	11	43	16	13	65	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.944		0.963				
Flt Protected	0.971					0.992	
Satd. Flow (prot)	1742	0	1830	0	0	1885	
Flt Permitted	0.971					0.992	
Satd. Flow (perm)	1742	0	1830	0	0	1885	
Link Speed (mph)	40		30			35	
Link Distance (ft)	2113		694			582	
Travel Time (s)	36.0		15.8			11.3	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	
Adj. Flow (vph)	20	14	53	20	16	80	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	34	0	73	0	0	96	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	J	0	Ū		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: (	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 20.8%			IC	U Level	of Service	A

HCM 6th TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2024 Existing PM

Intersection			_		_	
Int Delay, s/veh	2.1					
			NDT	NDD	0.01	007
	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		<b>•</b>	10	40	<del>ب</del> ا ۲
Traffic Vol, veh/h	16	11	43	16	13	65
Future Vol, veh/h	16	11	43	16	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage,		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	14	53	20	16	80
Major/Minor M	inor1	Ν	/lajor1	Ν	Major2	
Conflicting Flow All	175	63	0	0	73	0
Stage 1	63	-	-	-	-	-
Stage 2	112	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	819	1007	-	-	1540	-
Stage 1	965	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	810	1007	-	-	1540	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Ŭ						
A			ND		00	
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		1.2	
HCM LOS	Α					
Minor Lane/Major Mvmt		NBT	NBRV	NBLn1	SBL	SBT
Capacity (veh/h)				880	1540	-
HCM Lane V/C Ratio		-		0.038	0.01	
HCM Control Delay (s)		-	-	9.3	7.4	0
				A	A	Ă
HCM Lane LOS						
HCM Lane LOS HCM 95th %tile Q(veh)		_	-	0.1	0	-

01/25/2024 Passero Associates Synchro 11 Report Page 3 01/25/2024 Passero Associates

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			\$			4			4	
Traffic Volume (vph)	65	327	4	0	208	22	3	1	0	32	0	52
Future Volume (vph)	65	327	4	0	208	22	3	1	0	32	0	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt		0.999			0.987						0.916	
Flt Protected		0.992						0.964			0.981	
Satd. Flow (prot)	0	1883	0	0	1858	0	0	1832	0	0	1707	(
Flt Permitted		0.992						0.964			0.981	
Satd. Flow (perm)	0	1883	0	0	1858	0	0	1832	0	0	1707	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	74	372	5	0	236	25	3	1	0	36	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	451	0	0	261	0	0	4	0	0	95	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
	ther											
Control Type: Unsignalized												

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2024 Existing PM

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	2011		4			4		002	4	0.0.11
Traffic Vol, veh/h	65	327	4	0	208	22	3	1	0	32	0	52
Future Vol. veh/h	65	327	4	0	208	22	3	1	0	32	0	52
Conflicting Peds, #/hr	0	0	0	0	200	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length		-	-			-			-			-
Veh in Median Storage	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0			0			0			0	
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mymt Flow	74	372	5	0	236	25	3	1	0	36	0	59
		0.2	Ū	, v	200	20	Ū		Ű		Ű	00
Major/Minor	Majort			(aiar)			liner1			liner		
	Major1			Major2			Minor1	=0.4		/linor2		0.10
Conflicting Flow All	261	0	0	377	0	0	801	784	375	772	774	249
Stage 1	-	-	-	-	-	-	523	523	-	249	249	-
Stage 2	-	-	-	-	-	-	278	261	-	523	525	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1315	-	-	1193	-	-	305	327	676	319	332	795
Stage 1	-	-	-	-	-	-	541	534	-	759	704	-
Stage 2	-	-	-	-	-	-	733	696	-	541	533	-
Platoon blocked, %	4045	-	-	4400	-	-	007	004	070	004	000	705
Mov Cap-1 Maneuver	1315	-	-	1193	-	-	267	304	676	301	308	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	304	-	301	308	-
Stage 1	-	-	-	-	-	-	503	496	-	705	704	-
Stage 2	-	-	-	-	-	-	679	696	-	501	495	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0			18.3			14.1		
HCM LOS							С			В		
Minor Lane/Major Mvm	it I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		275	1315	-		1193	-	-	489			
HCM Lane V/C Ratio		0.017		-	-		-		0.195			
HCM Control Delay (s)		18.3	7.9	0	-	0	-	-	14.1			
HCM Lane LOS		10.0 C	7.5 A	A	-	A	-	-	B			
HCM 95th %tile Q(veh)		0.1	0.2	-	-	0	-	-	0.7			
		0.1	0.2			0			5.1			

01/25/2024 Passero Associates Synchro 11 Report Page 5 01/25/2024 Passero Associates

**APPENDIX D:** LOS CALCULATIONS – BACKGROUND CONDITIONS



1: Fellows Rd & Per	nfield R	d					2029 Background Al
	+	*	4	Ļ	•	1	
_ane Group	EBT	EBR	WBL	WBT	NBL	NBR	
ane Configurations	ĥ			ę	Y		
Traffic Volume (vph)	253	30	2	767	60	8	
Future Volume (vph)	253	30	2	767	60	8	
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
ane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.986				0.984		
Fit Protected					0.958		
Satd. Flow (prot)	1714	0	0	1863	1791	0	
Fit Permitted					0.958		
Satd. Flow (perm)	1714	0	0	1863	1791	0	
Link Speed (mph)	45			45	35		
ink Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%	
Adj. Flow (vph)	258	31	2	783	61	8	
Shared Lane Traffic (%)							
ane Group Flow (vph)	289	0	0	785	69	0	
Enter Blocked Intersection	No	No	No	No	No	No	
ane Alignment	Left	Right	Left	Left	Left	Right	
Vedian Width(ft)	0			0	12		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free	J	10	Free	Stop	0	
ntersection Summary							
,	Other						
Control Type: Unsignalized							
ntersection Capacity Utilizati	on 52.4%			IC		of Service /	A

HCM 6th TWSC	
1: Fellows Rd & Penfield R	d

### Fellows Rd Properties 2029 Background AM

Intersection	_		_			
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1		TIPL	<del>اردار</del>	Y	
Traffic Vol, veh/h	253	30	2	<b>*1</b> 767	60	8
Future Vol. veh/h	253	30	2	767	60	8
Conflicting Peds, #/hr	255	0	0	0	00	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		Stop -	None
				None -	- 0	
Storage Length	-	-	-		-	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	31	2	783	61	8
Major/Minor M	lajor1	I	Major2		Minor1	
Conflicting Flow All	0	0	289	0	1061	274
Stage 1	-	-		-	274	
Stage 2	-	-	-	-	787	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-		-		5.4	- 0.2
Critical Hdwy Stg 2		-	-	-	5.4	-
Follow-up Hdwy	-	_	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-		1284	-	250	770
	-	-	1204	-	250	
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	452	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1284	-	249	770
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	451	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		22.8	
HCM LOS	0		0		22.0 C	
					U	
Minor Lane/Major Mvmt		NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		271	-	-	1284	-
		0.256	-	-	0.002	-
HCM Lane V/C Ratio						•
HCM Lane V/C Ratio		22.8	-	-	7.8	0
HCM Lane V/C Ratio HCM Control Delay (s)		22.8	-	-	7.8 A	0 A
HCM Lane V/C Ratio						

01/26/2024 Passero Associates Synchro 11 Report Page 1 01/26/2024 Passero Associates

	1	•	<b>†</b>	1	1	Ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- Y		f,			é(	
Traffic Volume (vph)	16	6	34	10	6	28	
Future Volume (vph)	16	6	34	10	6	28	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.965		0.968				
Flt Protected	0.964					0.992	
Satd. Flow (prot)	1681	0	1749	0	0	1767	
Flt Permitted	0.964					0.992	
Satd. Flow (perm)	1681	0	1749	0	0	1767	
Link Speed (mph)	40		30			35	
Link Distance (ft)	2113		694			582	
Travel Time (s)	36.0		15.8			11.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%	
Adj. Flow (vph)	17	6	36	11	6	30	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	23	0	47	0	0	36	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	J	0	J		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: 0	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 16.6%			IC	Ulevel	of Service A	Ą

	HCM 6th TWSC	
3: Fellows Road & Furman Road	3: Fellows Road & Furman Road	

Fellows Rd Properties 2029 Background AM

Intersection						
Int Delay, s/veh	2.5					
2.		WDD	NDT	NDC	0.07	0.0.7
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	•	4	10	•	ę
Traffic Vol, veh/h	16	6	34	10	6	28
Future Vol, veh/h	16	6	34	10	6	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-		-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	22	40	0
Mvmt Flow	17	6	36	11	6	30
Major/Minor I	Minor1	ľ	Major1	1	Major2	
Conflicting Flow All	84	42	0	0	47	0
Stage 1	42	-	-		-	
Stage 2	42	-				
Critical Hdwy	6.47	6.2		-	4.5	
Critical Hdwy Stg 1	5.47	0.2				
Critical Hdwy Stg 2	5.47	-			-	
Follow-up Hdwy	3.563	3.3			2.56	
Pot Cap-1 Maneuver	3.503 905	3.3 1034	-	-	1348	-
	905	1034	-	-		-
Stage 1	968		-	-	-	-
Stage 2	968	-	-	-	-	-
Platoon blocked, %	000	4004	-	-	4040	-
Mov Cap-1 Maneuver	900	1034	-	-	1348	-
Mov Cap-2 Maneuver	900	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9		0		1.4	
HCM LOS	A		0		1.4	
	A					
Minor Lane/Major Mvm	nt	NBT	NBRV	WBLn1	SBL	SBT
Capacity (veh/h)		-	-	933	1348	-
HCM Lane V/C Ratio		-	-	0.025	0.005	-
HCM Control Delay (s)		-	-	9	7.7	0
HCM Lane LOS		-	-	Α	Α	А
HCM 95th %tile Q(veh)	)	-	-	0.1	0	-

01/26/2024 Passero Associates Synchro 11 Report Page 3 01/26/2024 Passero Associates

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		\$			4			4			\$	
Traffic Volume (vph)	20	114	0	1	346	15	3	0	0	28	0	50
Future Volume (vph)	20	114	0	1	346	15	3	0	0	28	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt					0.995						0.914	
Flt Protected		0.993						0.950			0.982	
Satd. Flow (prot)	0	1726	0	0	1844	0	0	1805	0	0	1653	(
Flt Permitted	-	0.993		-	-		-	0.950			0.982	
Satd, Flow (perm)	0	1726	0	0	1844	0	0	1805	0	0	1653	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.8
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	23	133	0	1	402	17	3	0	0	33	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	0	0	420	0	0	3	0	0	91	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	N
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0	Ŭ		0	Ŭ		0	Ū		0	Ŭ
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type: C	ther											
Control Type: Unsignalized												

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2029 Background AM

Int Delay, s/veh       2.1         Movement       EBL       EBL       EBR       WBL       WBT       WBR       NBL       NBT       NBR       SBL       SBT       SBR         Lane Configurations	Intersection												
Non-Configurations         EBL         EBT         EBR         WBL         WBT         WBR         NBL         NBT         NBR         SBL         SBT         SBR           Traffic Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Future Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Future Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Storge Length         -         -         -         -         -         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         -         0         -         -         0         0         0         0         0         <		21											
Lane Configurations         4         4         4         4         4         4           Traffic Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Future Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Conflicting Feds,#hr         0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Traffic Vol, veh/h       20       114       0       1       346       15       3       0       0       28       0       50         Curure Vol, veh/h       20       114       0       1       346       15       3       0       0       28       0       50         Conflicting Peds, #/hr       0 </td <td></td> <td>EBL</td> <td></td> <td>EBR</td> <td>WBL</td> <td></td> <td>WBR</td> <td>NBL</td> <td></td> <td>NBR</td> <td>SBL</td> <td>-</td> <td>SBR</td>		EBL		EBR	WBL		WBR	NBL		NBR	SBL	-	SBR
Future Vol, veh/h         20         114         0         1         346         15         3         0         0         28         0         50           Conflicting Peds, #/hr         0<													
Conflicting Peds, #/hr         0				-				-	-	-		-	
Sign Control         Free         Free         Free         Free         Free         Free         Free         Free         Stop				-				-	-	-		-	
RT Channelized       -       None       None       -       None       Non			-	•	-	-	•	-	-	•	-	-	•
Storage Length       -       0       -       -       0       -       -       0       -       -       0       0													
Veh in Median Storage, #       -       0       -       -       0       1       0       0       2       15       0       0       0       0       0       2       15       0       0       0       0       33       0       0       133       10       0       133       10       0       133       0       0       133       10       0       133       133       11       9       0       0       133       0       0       133       133       133       133       133       133       133       133       133       133       133       133       133       133       133       133       1							None			None			None
Grade, %       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       0       -       0 <th0< th=""> <th0< t<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td></th0<></th0<>							-			-			-
Beak Hour Factor         86			-			-			-			-	-
Heavy Vehicles, %       11       9       0       0       2       15       0			-			-			-			-	
Winn Flow         23         133         0         1         402         17         3         0         0         33         0         58           Major/Minor         Major1         Major2         Minor1         Minor2           Conflicting Flow All         419         0         0         133         0         0         621         600         133         592         592         411           Stage 1         -         -         -         -         -         442         421         179         -         413         413         -           Critical Hdwy         4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         5.5         -         6.1         5.5         7         6.1         5.5         7 </td <td></td>													
Major/Minor         Major1         Major2         Minor1         Minor2           Conflicting Flow All         419         0         0         133         0         0         621         600         133         592         592         411           Stage 1         -         -         -         -         179         179         -         413         413         -           Stage 2         -         -         -         -         4.2         421         179         179         -           Critical Hdwy Stg 1         -         -         -         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5			-	-	-	-		-	-	-	-	-	
Conflicting Flow All         419         0         0         133         0         0         621         600         133         592         592         411           Stage 1         -         -         -         -         179         179         -         413         413         -           Chitcal Hdwy         4.21         -         -         -         -         -         442         421         -         179         179         -         173         173         -         5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         3.3<	NIVITITE FIOW	23	133	U	1	402	17	3	U	U	33	U	50
Conflicting Flow All         419         0         0         133         0         0         621         600         133         592         592         411           Stage 1         -         -         -         -         179         179         -         413         413         -           Chitcal Hdwy         4.21         -         -         -         -         -         442         421         -         179         179         -         173         173         -         5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         6.2         7.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         3.3<													
Stage 1       -       -       -       -       179       179       -       413       413       -         Stage 2       -       -       -       -       -       179       179       -       413       413       -         Critical Hdwy       4.21       -       -       -       -       -       442       421       -       179       179       -         Critical Hdwy Stg 1       -       -       -       -       6.1       5.5       -       5.7       -       5	Major/Minor	Major1			Major2			Minor1		1	Minor2		
Stage 2       -       -       -       -       442       421       -       179       179       -         Critical Hdwy       4.21       -       -       4.1       -       7.1       6.5       6.2       7.1       6.5       6.25       Critical Hdwy Stg 1       -       -       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       755       620       597       -       5       5.4       3.3       3.5       4       3.43       3.5       4       3.43       3.5       4       3.43       3.5       4       3.43       3.5       -       4.3       3.43       5       9.7       5       -       6.04       5.7       -       755       -       620       597       -       755       -       620       597 </td <td>Conflicting Flow All</td> <td>419</td> <td>0</td> <td>0</td> <td>133</td> <td>0</td> <td>0</td> <td>621</td> <td>600</td> <td>133</td> <td>592</td> <td>592</td> <td>411</td>	Conflicting Flow All	419	0	0	133	0	0	621	600	133	592	592	411
Critical Howy         4.21         -         -         4.1         -         -         7.1         6.5         6.2         7.1         6.5         6.25           Critical Hdwy Stg 1         -         -         -         -         6.1         5.5         -         5.1         1.333         3.5         4         3.345	Stage 1	-	-	-	-	-	-	179	179	-	413	413	-
Critical Hdwy Stg 1       -       -       -       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       P       755       P       20       22       634       3.33       3.5       4       3.33       5       4       3.33       5       4       3.33       5       4       3.33       5       4       3.34       5       4       3.34       5       40       3.33       5       4       3.34       5       40       7.55       -       5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       7       5       75       - <t< td=""><td>Stage 2</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td></td><td>421</td><td></td><td>179</td><td>179</td><td>-</td></t<>	Stage 2	-	-	-		-	-		421		179	179	-
Critical Hdwy Stg 2       -       -       -       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       5.5       -       6.1       3.5       4       3.33       3.5       4       3.34       5.5       4       3.34       3.5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.34       5       4       3.44       4       2       634       4       4       2.2       634       4       4.12       634       4       4.12       634       400       7.8       1412       -       543       591       8.08       7.38       -       606	Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.25
Follow-up Howy         2.299         -         2.2         -         3.5         4         3.3         3.5         4         3.345           Pot Cap -1 Maneuver         1093         -         1464         -         403         417         922         421         422         634           Stage 1         -         -         -         827         755         -         620         597         -           Platoon blocked, %         -         -         -         -         859         407         922         413         412         634           Mov Cap-1 Maneuver         1093         -         1464         -         359         407         922         413         412         634           Mov Cap-2 Maneuver         -         -         -         808         738         606         596         -           Stage 1         -         -         -         -         608         738         606         596         -           Stage 2         -         -         -         -         543         591         808         738         -           Approach         EB         WB         WB         WB	Critical Hdwy Stg 1	-	-	-	-	-	-			-	••••		-
Pot Cap-1 Maneuver         1093         -         1464         -         403         417         922         421         422         634           Stage 1         -         -         -         -         -         827         755         -         620         597         -           Stage 2         -         -         -         -         598         592         -         827         755         -           Platoon blocked, %         -         -         -         -         -         598         592         -         827         755         -           Mov Cap-1 Maneuver         1093         -         1464         -         359         407         922         413         412         634           Mov Cap-2 Maneuver         -         -         -         -         359         407         922         413         412         634           Stage 1         -         -         -         -         543         591         808         738         -           Approach         EB         WB         NB         SB         -         -         -         543         591         -         807         <	Critical Hdwy Stg 2		-	-		-	-						
Stage 1       -       -       -       -       -       -       827       755       -       620       597       -       -       -       -       -       -       -       598       592       -       620       597       -       -       -       -       598       592       -       620       597       -       -       -       -       -       598       592       -       827       755       -       Platon blocked, %       -	Follow-up Hdwy		-	-		-	-						
Stage 2         -         -         -         598         592         -         827         755         -           Platon blocked, %         -         -         -         -         -         598         592         -         827         755         -           Mov Cap-1 Maneuver         1093         -         1464         -         -         359         407         922         413         412         634           Mov Cap-2 Maneuver         -         -         -         -         359         407         413         412         634           Mov Cap-2 Maneuver         -         -         -         -         543         591         -         808         738         -         606         596         -         Stage 2         -         -         -         543         591         -         808         738         -         HCM Control Delay, s         1.2         0         15.1         13.2         +         HCM Los         EB         WB         WB         WB         WB         Maneueueueueueueueueueueueueueueueueueueu	Pot Cap-1 Maneuver	1093	-	-	1464	-	-			922			634
Platoon blocked, %       -		-	-	-	-	-	-			-			-
Mov Cap-1 Maneuver         1093         -         -         1464         -         -         359         407         922         413         412         634           Mov Cap-2 Maneuver         -         -         -         -         359         407         922         413         412         634           Mov Cap-2 Maneuver         -         -         -         -         359         407         -         413         412         -           Stage 1         -         -         -         -         -         808         738         -         606         596         -           Stage 2         -         -         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         543         591         -         808         738         -           HCM Control Delay, s         1.2         0         15.1         13.2         -         -         C         B         -         -         532         -         -         -         0.01         -         -         0.17		-	-	-	-	-	-	598	592	-	827	755	-
Wov Cap-2 Maneuver         -         -         -         -         359         407         -         413         412         -           Stage 1         -         -         -         -         -         808         738         606         596         -           Stage 2         -         -         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         543         591         -         808         738         -           HCM Control Delay, s         1.2         0         15.1         13.2         -         -         -         -         0         -         13.2         -         -         -         -         -         13.2         -         -         -         -         13.2         -         -         -         -         -         0         13.2         -         -         -	Platoon blocked, %		-	-		-	-						
Stage 1         -         -         -         -         808         738         -         606         596         -           Stage 2         -         -         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         543         591         -         808         738         -         -         -         543         591         -         808         738         -         -         -         -         543         591         -         808         738         -         -         -         15.1         13.2         -         -         -         1         -         -         0         1         5.1         13.2         -         -         -         -         0         0         -         1         3.2         -         -         -         0         0         1         3.2         -         -         -         1         3.2         -         -         -         1         3.2         -         -         -         0         1         3.2         -	Mov Cap-1 Maneuver	1093	-	-	1464	-							634
Stage 2         -         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         -         543         591         -         808         738         -           Approach         EB         WB         NB         SB         -         -         -         -         -         -         -         543         591         -         808         738         -           HCM Control Delay, s         1.2         0         15.1         13.2         C         B         B           Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Lane V/C Ratio         0.01         0.21         -         0.001         -         0.17           HCM Lane LOS         C         A         A         A         A         B         B	Mov Cap-2 Maneuver	-	-	-	-	-	-						-
Approach         EB         WB         NB         SB           HCM Control Delay, s         1.2         0         15.1         13.2           HCM LOS         C         B           Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Lane V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Control Delay (s)         15.1         8.4         0         7.5         0         -         13.2           HCM Lane LOS         C         A         A         -         B         -         13.2         -         -         -         -         -         -         -         -         -         -         -         -		-	-	-	-	-	-						-
Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Long V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Long V/C Ratio         0.51         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         -         A         -         B         -	Stage 2	-	-	-	-	-	-	543	591	-	808	738	-
Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Long V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Long V/C Ratio         0.51         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         -         A         -         B         -													
Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Long V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Long V/C Ratio         0.51         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         -         A         -         B         -	Approach	EB		_	WB			NB			SB		_
HCM LOS         C         B           Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Lane V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Control Delay (s)         15.1         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         A         -         A         -         B													
Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         359         1093         -         1464         -         532           HCM Lane V/C Ratio         0.01         0.021         -         0.001         -         0.17           HCM Control Delay (s)         15.1         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         A         A         A         A         -         B													
Capacity (veh/h)         359         1093         -         -         1464         -         -         532           HCM Lane V/C Ratio         0.01         0.021         -         -         0.001         -         -         0.17           HCM Control Delay (s)         15.1         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         A         -         A         -         B								5			5		
Capacity (veh/h)         359         1093         -         -         1464         -         -         532           HCM Lane V/C Ratio         0.01         0.021         -         -         0.001         -         -         0.17           HCM Control Delay (s)         15.1         8.4         0         -         7.5         0         -         13.2           HCM Lane LOS         C         A         A         -         A         -         B													
HCM Lane V/C Ratio 0.01 0.021 0.001 0.17 HCM Control Delay (s) 15.1 8.4 0 - 7.5 0 - 13.2 HCM Lane LOS C A A - A A - B		nt M			EBL	EBR		WBT	WBR S				
HCM Control Delay (s) 15.1 8.4 0 - 7.5 0 - 13.2 HCM Lane LOS C A A - A A - B					-	-		-	-				
HCM Lane LOS C A A - A A - B									-				
					-			-	-				
HCM 95th %tile Q(veh) 0 0.1 0 0.6													
	HCM 95th %tile Q(veh	)	0	0.1	-	-	0	-	-	0.6			

01/26/2024 Passero Associates Synchro 11 Report Page 5 01/26/2024 Passero Associates

1: Fellows Rd & Per	ntield R	ld					2029 Background PM
	-	$\mathbf{r}$	4	-	1	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ĥ			र्स	Y		
Traffic Volume (vph)	793	90	16	497	48	11	
Future Volume (vph)	793	90	16	497	48	11	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.986				0.975		
Flt Protected				0.998	0.961		
Satd. Flow (prot)	1857	0	0	1860	1780	0	
Flt Permitted				0.998	0.961		
Satd. Flow (perm)	1857	0	0	1860	1780	0	
Link Speed (mph)	45			45	35		
Link Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%	
Adj. Flow (vph)	881	100	18	552	53	12	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	981	0	0	570	65	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0	J		0	12	J ·	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 57.2%			10		of Service B	

HCM 6th TWSC 1: Fellows Rd & Penfield Rd Fellows Rd Properties 2029 Background PM

Intersection	_		_			
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	101 1	LDI	TUDL	<u>۱۵۷۷</u>		NDI
Traffic Vol, veh/h	<b>793</b>	90	16	497	<b>4</b> 8	11
Future Vol. veh/h	793	90	16	497	40	11
Conflicting Peds, #/hr	195	90	0	497	40	0
	Free	Free	Free	Free	Stop	Stop
Sign Control RT Channelized	-riee	None	-	None	Stop -	None
Storage Length	-	None -	-	None -	- 0	None
				- 0	0	-
Veh in Median Storage,		-	-	-	-	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	100	18	552	53	12
Major/Minor N	/lajor1	Ν	Major2	ľ	Minor1	
Conflicting Flow All	0	0	981	0	1519	931
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy			2.2	-	3.5	3.3
Pot Cap-1 Maneuver		-	712	-	132	326
Stage 1				-	387	
Stage 2	-	-	-	-	559	-
Platoon blocked, %	-	-	-	-	000	_
Mov Cap-1 Maneuver	-	-	712	-	127	326
Mov Cap-1 Maneuver Mov Cap-2 Maneuver		-	- 112	-	127	520
	-	-	-		387	
Stage 1	-	-	-	-		-
Stage 2	-	-	-	-	539	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		49.9	
HCM LOS					E	
					_	
			EDT	500		WDT
Minor Lane/Major Mvmt		NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		143	-	-	712	-
HCM Lane V/C Ratio		0.458	-	-	0.025	-
HCM Control Delay (s)		49.9	-	-	10.2	0
HCM Lane LOS		E	-	-	В	Α
HCM 95th %tile Q(veh)		2.1	-	-	0.1	-
		2.1			0.1	

01/30/2024 Passero Associates Synchro 11 Report Page 1 01/30/2024 Passero Associates

3: Fellows Road & F	urman	Road					2029 Background P
	∢	*	Ť	1	1	Ļ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			÷٩	
Traffic Volume (vph)	16	11	44	16	14	67	
Future Volume (vph)	16	11	44	16	14	67	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.944		0.964				
Flt Protected	0.971					0.992	
Satd. Flow (prot)	1742	0	1832	0	0	1885	
Flt Permitted	0.971					0.992	
Satd. Flow (perm)	1742	0	1832	0	0	1885	
Link Speed (mph)	40		30			35	
Link Distance (ft)	2113		694			582	
Travel Time (s)	36.0		15.8			11.3	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	
Adj. Flow (vph)	20	14	54	20	17	83	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	34	0	74	0	0	100	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	Ŭ	0	Ū		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 21.0%			IC	ا ا مرد ا ا ا	of Service A	4

HCM 6th TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2029 Background PM

Intersection	_			_		
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	YVDL	WDI		NUN	ODL	<u>उठा</u> र्द
Traffic Vol, veh/h	16	11	₩ 44	16	14	€ 67
Future Vol. veh/h	16	11	44	16	14	67
Conflicting Peds, #/hr	0	0	44	0	0	0/
	Stop	Stop	Free	Free	Free	Free
RT Channelized	Stop -	None	-	None	-	
Storage Length	- 0	None -	-	None -	-	None -
Veh in Median Storage,		-	0	-	-	0
	# U 0		-			0
Grade, %		-	0	-	-	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	14	54	20	17	83
Major/Minor M	linor1	Ν	Major1		Major2	
Conflicting Flow All	181	64	0	0	74	0
Stage 1	64	-	-	-	-	-
Stage 2	117	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4			-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-		2.2	-
Pot Cap-1 Maneuver	813	1006	-	-	1538	-
Stage 1	964	-	_		-	-
Stage 2	913	-	-	-	-	-
Platoon blocked, %	315	-			-	
Mov Cap-1 Maneuver	803	1006	-	-	1538	-
Mov Cap-1 Maneuver	803	-		_	- 1000	
Stage 1	964	-	-	-	-	-
	904	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		1.3	
HCM LOS	А					
Nienal and Maine Maria		NDT			0.01	ODT
Minor Lane/Major Mvmt	_	NBT		VBLn1	SBL	SBT
Capacity (veh/h)		-	-	875	1538	-
HCM Lane V/C Ratio		-		0.038		-
		-	-	9.3	7.4	0
HCM Control Delay (s)						
HCM Lane LOS HCM 95th %tile Q(veh)		-	-	A 0.1	A 0	A

01/30/2024 Passero Associates Synchro 11 Report Page 3 01/30/2024 Passero Associates

Lane Configurations         Image of the second		≯	-	$\mathbf{r}$	1	-	•	•	1	1	1	Ŧ	~
Traffic Volume (vph)         67         336         5         0         213         23         3         1         0           Future Volume (vph)         67         336         5         0         213         23         3         1         0           Ideal Flow (vphpl)         1900         19	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Traffic Volume (vph)         67         336         5         0         213         23         3         1         0           Future Volume (vph)         67         336         5         0         213         23         3         1         0           Ideal Flow (vphpl)         1900         19	Lane Configurations		4			£.			4			\$	
Future Volume (vph)         67         336         5         0         213         23         3         1         0           Ideal Flow (vphpi)         1900		67		5	0		23	3		0	33	0	53
Ideal Flow (vphp1)         1900 <td></td> <td>67</td> <td>336</td> <td>5</td> <td>0</td> <td>213</td> <td>23</td> <td>3</td> <td>1</td> <td>0</td> <td>33</td> <td>0</td> <td>53</td>		67	336	5	0	213	23	3	1	0	33	0	53
Lane Util. Factor         1.00 <td></td> <td>1900</td>		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Fit Protected         0.992         0.964           Satd. Flow (port)         0         1881         0         0         1859         0         0         1832         0           Fit Permitted         0.992         0.964         0.964         0.992         0.964           Satd. Flow (perm)         0         1881         0         0         1859         0         0         1832         0           Link Speed (mph)         35         35         30         117         117         Peak Hour Factor         0.88         0.89         0.89         0         0 <td></td> <td>1.00</td>		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Satid. Flow (prot)         0         1881         0         0         1859         0         0         1832         0           FIP Permitted         0.992         0.964         0.96	Frt		0.998			0.987						0.917	
Fit Permitted         0.992         0.964           Satd. Flow (perm)         0         1881         0         1859         0         1832         0           Link Speed (mph)         35         35         30         1117         513         1117           Travel Time (s)         12.3         15.1         11.7         513         11.7           Peak Hour Factor         0.88         0.89         0.88         0.89         0.88         0.89         0.88         0.89         0.88         0.89         0.88         0.89         0.89         0.88         0.89         0.89         0.89         0.89         0.89         0.89         0.89         0.89         0.89	Flt Protected		0.992						0.964			0.981	
Satd, Flow (perm)         0         1881         0         0         1859         0         0         1832         0           Link Speed (mph)         35         35         30         1 <td>Satd. Flow (prot)</td> <td>0</td> <td>1881</td> <td>0</td> <td>0</td> <td>1859</td> <td>0</td> <td>0</td> <td>1832</td> <td>0</td> <td>0</td> <td>1709</td> <td>0</td>	Satd. Flow (prot)	0	1881	0	0	1859	0	0	1832	0	0	1709	0
Link Speed (mph)         35         35         30           Link Distance (ft)         630         774         513           Travel Time (s)         12.3         15.1         11.7           Peak Hour Factor         0.88         0.89         0.89         0.89         0.89         0.89         0.89         0.89         0.89         0.88         0.89         0.89			0.992						0.964			0.981	
Link Distance (ft)         630         774         513           Travel Time (s)         12.3         15.1         11.7           Peak Hour Factor         0.88         0.89         0.90         0%         0	Satd. Flow (perm)	0	1881	0	0	1859	0	0	1832	0	0	1709	C
Travel Time (s)         12.3         15.1         11.7           Peak Hour Factor         0.88         0	Link Speed (mph)		35			35			30			30	
Peak Hour Factor         0.88	Link Distance (ft)		630			774			513			1914	
Heavy Vehicles (%)         0%	Travel Time (s)		12.3			15.1			11.7			43.5	
Adj. Flow (vph)         76         382         6         0         242         26         3         1         0           Shared Lane Traffic (%)         Lane Group Flow (vph)         0         464         0         0         268         0         0         4         0           Enter Blocked Intersection         No         Left         Left         Right         Left         Right         Left         Right         Left         Right         Left         Right         Left         No         No         No         No         No         No         No         Link Offset(ft)         0         0         0         0         Crosswalk Width(ft)         16         16         Two way Left Turn Lane         Headway Factor         1.00         <	Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Shared Lane Traffic (%)         Constraint         Constraint <thconstraint< th="">         Constraint</thconstraint<>	Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Lane Group Flow (vph)         0         464         0         0         268         0         4         0           Enter Blocked Intersection         No         Lane Alignment         Left         Left         Left         Right         Left         Ri	Adj. Flow (vph)	76	382	6	0	242	26	3	1	0	38	0	60
Land Robert Structure         No         No </td <td>Shared Lane Traffic (%)</td> <td></td>	Shared Lane Traffic (%)												
Lane Alignment         Left         Left         Right         L           Median Width(ft)         0	Lane Group Flow (vph)	0	464	0	0	268	0	0	4	0	0	98	(
Median Width(ft)         0         0         0           Link Offset(ft)         0         0         0           Crosswalk Width(ft)         16         16         16           Two way Left Turn Lane	Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Link Offset(ft) 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Median Width(ft)		0			0			0			0	
Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Link Offset(ft)		0			0			0			0	
Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Crosswalk Width(ft)		16			16			16			16	
Turning Speed (mph) 15 9 15 9 15 9	Two way Left Turn Lane												
······································	Headway 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
	Turning Speed (mph)	15		9	15		9	15		9	15		ç
Sign Control Free Free Stop	Sign Control		Free			Free			Stop			Stop	
Intersection Summary	Intersection Summary												(
Area Type: Other Control Type: Unsignalized		ther											

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2029 Background PM

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			\$	
Traffic Vol. veh/h	67	336	5	0	213	23	3	1	0	33	0	53
Future Vol. veh/h	67	336	5	0	213	23	3	1	0	33	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	76	382	6	0	242	26	3	1	0	38	0	60
Major/Minor N	/lajor1			Major2	_	1	Minor1		ľ	/linor2	_	_
Conflicting Flow All	268	0	0	388	0	0	822	805	385	793	795	255
Stage 1	-	-	-	-	-	-	537	537	-	255	255	
Stage 2	-	-	-	-	-	-	285	268	-	538	540	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1307	-	-	1182	-	-	295	318	667	309	323	789
Stage 1	-	-	-	-	-	-	532	526	-	754	700	-
Stage 2	-	-	-	-	-	-	727	691	-	531	524	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1307	-	-	1182	-	-	257	294	667	291	299	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	294	-	291	299	-
Stage 1	-	-	-	-	-	-	493	487	-	698	700	-
Stage 2	-	-	-	-	-	-	672	691	-	491	485	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0			18.8			14.5		
HCM LOS							С			В		
Minor Lane/Major Mvm	t 1	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		265	1307	-	-	1182	-	-	476			
HCM Lane V/C Ratio		0.017	0.058	-	-	-	-	-	0.205			
HCM Control Delay (s)		18.8	7.9	0	-	0	-	-	14.5			
HCM Lane LOS		С	A	A	-	A	-	-	В			
HCM 95th %tile Q(veh)		0.1	0.2	-	-	0	-	-	0.8			

01/30/2024 Passero Associates Synchro 11 Report Page 5 01/30/2024 Passero Associates

## **APPENDIX E:** LOS CALCULATIONS – FULL BUILD CONDITIONS



Lanes, Volumes, Tir 1: Fellows Rd & Per	0	Rd					Fellows Rd Propertie 2029 Full Build A
	+	*	4	t	•	*	
_ane Group	EBT	EBR	WBL	WBT	NBL	NBR	
ane Configurations	ĥ			र्स	Y		
Traffic Volume (vph)	253	45	13	767	106	40	
Future Volume (vph)	253	45	13	767	106	40	
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
ane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.980				0.963		
Fit Protected				0.999	0.965		
Satd. Flow (prot)	1701	0	0	1861	1766	0	
Flt Permitted				0.999	0.965		
Satd. Flow (perm)	1701	0	0	1861	1766	0	
_ink Speed (mph)	45			45	35		
ink Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%	
Adj. Flow (vph)	258	46	13	783	108	41	
Shared Lane Traffic (%)							
ane Group Flow (vph)	304	0	0	796	149	0	
Enter Blocked Intersection	No	No	No	No	No	No	
ane Alignment	Left	Right	Left	Left	Left	Right	
Vedian Width(ft)	0	Ŭ		0	12	Ŭ	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
ntersection Summary							
	)ther						
Control Type: Unsignalized							
ntersection Capacity Utilizati	on 65.8%			IC	CU Level o	of Service (	2

HCM 6th TWSC
1: Fellows Rd & Penfield Rd

### Fellows Rd Properties 2029 Full Build AM

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4	20.1		र्भ	Y	
Traffic Vol, veh/h	253	45	13	767	106	40
Future Vol, veh/h	253	45	13	767	106	40
Conflicting Peds, #/hr	233	40	0	0	0	40
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- SiOP	None
Storage Length	-	None -	-	None -	- 0	None -
Veh in Median Storage		-	-	0	0	-
Grade. %	e, # 0 0			0	0	
	-	-	-	-	-	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	46	13	783	108	41
Major/Minor I	Major1	ľ	Major2	ľ	Minor1	
Conflicting Flow All	0	0	304	0	1090	281
Stage 1	-	-	-	-	281	-
Stage 2					809	
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	- 0.2
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy			2.2		3.5	3.3
Pot Cap-1 Maneuver	-	-	1268	-	240	763
		-	1208			
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	441	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1268	-	236	763
Mov Cap-2 Maneuver	-	-	-	-	236	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	433	-
Approach	EB		WB		NB	
	0		0.1		29.7	
HCM Control Delay, s	U		0.1			
HCM LOS					D	
Minor Lane/Major Mvm	nt 🛛	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		291	-	-	1268	-
HCM Lane V/C Ratio		0.512	-	-	0.01	-
HCM Control Delay (s)		29.7	-	-	7.9	0
						-
		П	-	-	A	A
HCM Lane LOS HCM 95th %tile Q(veh)	)	D 2.7	-	-	A 0	A

01/30/2024 Passero Associates Synchro 11 Report Page 1 01/30/2024 Passero Associates

Lanes, Volumes, Ti 2: Fellows Road & F	0	ed Driv	/ewav				Fellows Rd Properties 2029 Full Build Al
	4	×.	1	1	1	ţ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		el el			ę	
Traffic Volume (vph)	32	72	46	11	24	36	
Future Volume (vph)	32	72	46	11	24	36	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.907		0.974				
Flt Protected	0.985					0.980	
Satd. Flow (prot)	1664	0	1814	0	0	1825	
Flt Permitted	0.985					0.980	
Satd. Flow (perm)	1664	0	1814	0	0	1825	
Link Speed (mph)	30		30			30	
Link Distance (ft)	822		1480			908	
Travel Time (s)	18.7		33.6			20.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	35	78	50	12	26	39	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	113	0	62	0	0	65	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60		60	60		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 22.8%			IC	U Level	of Service	A

01/30/2024 Passero Associates Synchro 11 Report Page 3 HCM 6th TWSC 2: Fellows Road & Proposed Driveway Fellows Rd Properties 2029 Full Build AM

5.2 WBL 32 32 0 Stop	72 72 0	NBT	NBR 11 11	SBL	SBT
WBL 32 32 0 Stop	72 72 0	<b>1</b> → 46 46	11		SBT
32 32 0 Stop	72 72 0	<b>1</b> → 46 46	11		SBL
32 32 0 Stop	72 0	46 46			
32 0 Stop	72 0	46			ન
0 Stop	0		11	24	36
Stop		0		24	36
-	Stop		0	0	0
			Free	Free	Free
		-	None	-	None
0	-	-	-	-	-
e,# 0	-	0	-	-	0
0	-	0	-	-	0
92	92	92	92	92	92
2	2	2	2	2	2
35	78	50	12	26	39
Minort	_	Majort		Maiar	
		-	-		0
					-
			-		-
			-		-
		-	-		-
		-	-	-	-
		-	-	2.218	-
845	1011	-	-	1541	-
967	-	-	-	-	-
933	-	-	-	-	-
		-	-		-
831	1011	-	-	1541	-
	-	-	-	-	-
967	-	-	-	-	-
		-	-		
011					
		_			
		0		3	
Α					
nt	NRT	NRR\	NRI n1	SBI	SBT
in					- 100
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,	-				A
1)	-	-	0.4	0.1	-
	35 Minor1 147 56 91 6.42 5.42 3.518 845 967 933 831 831 831 967 917 WB	35         78           Minor1         I           147         56           56         -           91         -           6.42         6.22           5.42         -           5.42         -           3.518         3.318           845         1011           967         -           933         -           •         831           967         -           917         -           WB         -           •         9.3           A         -           •         NBT           -         -           ·)         -	35         78         50           Minor1         Major1           147         56         0           56         -         -           91         -         -           6.42         6.22         -           5.42         -         -           5.42         -         -           5.42         -         -           3.518         3.318         -           967         -         -           967         -         -           933         -         -           967         -         -           917         -         -           917         -         -           917         -         -           917         -         -           917         -         -           93         0         A           94         NBT         NBRW           93         -         -           94         -         -           95         -         -           93         0         -           93         0         -	35         78         50         12           Minor1         Major1         I           147         56         0         0           56         -         -         -           91         -         -         -           6.42         6.22         -         -           5.42         -         -         -           3.518         3.318         -         -           967         -         -         -           933         -         -         -           933         -         -         -           933         -         -         -           933         -         -         -           933         -         -         -           947         -         -         -           917         -         -         -           917         -         -         -           93         0         A         -           93         0         A         -           93         0         -         -           93         0         -         -	35         78         50         12         26           Minor1         Major1         Major2           147         56         0         0         62           56         -         -         -         -           91         -         -         -         -           6.42         6.22         -         4.12         -           5.42         -         -         -         -           3.518         3.318         -         -         2.218           845         1011         -         1541           967         -         -         -           933         -         -         -           967         -         -         -           917         -         -         -           917         -         -         -           917         -         -         -           917         -         -         -           917         -         -         -           917         -         -         -           917         -         -         -           917         -

01/30/2024 Passero Associates

3: Fellows Road & F	arritari						
	1	*	1	1	1	ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		f,			ર્શ	
Traffic Volume (vph)	19	12	45	11	8	60	
Future Volume (vph)	19	12	45	11	8	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.947		0.973				
Flt Protected	0.971					0.994	
Satd. Flow (prot)	1676	0	1771	0	0	1800	
Flt Permitted	0.971					0.994	
Satd. Flow (perm)	1676	0	1771	0	0	1800	
Link Speed (mph)	40		30			35	
Link Distance (ft)	1350		694			1480	
Travel Time (s)	23.0		15.8			28.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%	
Adj. Flow (vph)	20	13	48	12	9	64	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	33	0	60	0	0	73	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	<b>J</b> .	0	<b>J</b> .		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 19.9%			IC	ULevel	of Service A	A

HCM 6th TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2029 Full Build AM

Intersection						
Int Delay, s/veh	2.2					
			NDT	NDD	0.01	007
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	40	4		•	र्भ
Traffic Vol, veh/h	19	12 12	45	11	8 8	60
Future Vol, veh/h	19 0	12	45 0	11 0	8	60 0
Conflicting Peds, #/hr	Stop	-	Free	Free	Free	Free
Sign Control RT Channelized	Stop -	Stop None	Free -	None	Free -	None
Storage Length	- 0	None -	-	None	-	None -
Veh in Median Storage	-	-	0	-	-	0
Grade. %	, # 0 0	-	0		-	0
Peak Hour Factor	94	94	94	94	94	94
	94 7	94 0	94	94 22	94 40	94 0
Heavy Vehicles, %	20	13	48	12	40	64
Mvmt Flow	20	13	48	12	9	64
Major/Minor I	Minor1	Ν	Major1		Major2	
Conflicting Flow All	136	54	0	0	60	0
Stage 1	54	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.47	6.2	-	-	4.5	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.3	-	-	2.56	-
Pot Cap-1 Maneuver	846	1019	-	-	1333	-
Stage 1	956	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	840	1019	-	-	1333	-
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	922	-	-	-	-	-
A 1	14/0		ND		0.0	
Approach	WB		NB		SB	
HCM Control Delay, s	9.1		0		0.9	
HCM LOS	A					
Minor Lane/Major Mvm	it	NBT	NBR\	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	901	1333	-
HCM Lane V/C Ratio		-	-	0.037	0.006	-
HCM Control Delay (s)		-	-	9.1	7.7	0
HCM Lane LOS		-	-	A	А	A
HCM 95th %tile Q(veh)	)	-	-	0.1	0	-

01/30/2024 Passero Associates Synchro 11 Report Page 5 01/30/2024 Passero Associates

Lanes, Volumes, Tiı 4: Furman Road & F	0	ed Driv	eway				Fellows Rd Properties 2029 Full Build AM
	٦	-	-	×	1	1	
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		ę	el el		Y		
Traffic Volume (vph)	3	16	22	0	1	9	
Future Volume (vph)	3	16	22	0	1	9	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.877		
Flt Protected		0.993			0.995		
Satd. Flow (prot)	0	1850	1863	0	1625	0	
Flt Permitted		0.993			0.995		
Satd. Flow (perm)	0	1850	1863	0	1625	0	
Link Speed (mph)		30	40		30		
Link Distance (ft)		1350	763		478		
Travel Time (s)		30.7	13.0		10.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	3	17	24	0	1	10	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	20	24	0	11	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Left	Left	Right	Left	Right	
Median Width(ft)		0	0		12		
Link Offset(ft)		0	0		0		
Crosswalk Width(ft)		16	16		16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15			9	15	9	
Sign Control		Free	Free		Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 13.4%			IC	CU Level of	of Service A	

01/30/2024 Passero Associates Synchro 11 Report Page 7 HCM 6th TWSC 4: Furman Road & Proposed Driveway Fellows Rd Properties 2029 Full Build AM

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		Y	00.1
Traffic Vol, veh/h	3	16	22	0	1	9
Future Vol. veh/h	3	16	22	0	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-		-	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, %	2	2	2	2	2	2
Mymt Flow	3	17	24	0	1	10
	Ű			Ū		
	Major1		Major2		Minor2	
Conflicting Flow All	24	0	-	0	47	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	23	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-		3.518	
Pot Cap-1 Maneuver	1591	-	-	-	963	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	1000	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	961	1052
Mov Cap-2 Maneuver	-	-	-	-	961	-
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1000	-
Approach	EB		WB		SB	
HCM Control Delay, s	1.1		0		8.5	
HCM LOS	1.1		U		0.5 A	
					~	
Minor Lane/Major Mvm	it	EBL	EBT	WBT	WBR	
		1591	-	-	-	1042
Capacity (veh/h)			-	-	-	0.01
Capacity (veh/h) HCM Lane V/C Ratio		0.002				
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		7.3	0	-	-	8.5
Capacity (veh/h) HCM Lane V/C Ratio					-	8.5 A

01/30/2024 Passero Associates

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		4			4			4			\$	
Traffic Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Future Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt					0.993						0.915	
Flt Protected		0.991						0.950			0.982	
Satd. Flow (prot)	0	1721	0	0	1837	0	0	1805	0	0	1655	(
Flt Permitted		0.991						0.950			0.982	
Satd. Flow (perm)	0	1721	0	0	1837	0	0	1805	0	0	1655	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	31	133	0	1	402	23	3	0	0	49	0	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	426	0	0	3	0	0	132	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		ç
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type: Ot	ther											
Control Type: Unsignalized												
Control Type: Unsignalized Intersection Capacity Utilizatio	n 40.4%			IC	U Level o	of Service	A					

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2029 Full Build AM

Int Delay, s/veh       3         Movement       EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBR       SBL       SBT       SBR         Lane Configurations       4
Lane Configurations         4         4         4         4         4           Traffic Vol, veh/h         27         114         0         1         346         20         3         0         0         42         0         71           Future Vol, veh/h         27         114         0         1         346         20         3         0         0         42         0         71           Conflicting Peds, #hr         0 <t< td=""></t<>
Traffic Vol, veh/h       27       114       0       1       346       20       3       0       0       42       0       71         Future Vol, veh/h       27       114       0       1       346       20       3       0       0       42       0       71         Conflicting Peds, #hr       0
Traffic Vol, veh/h       27       114       0       1       346       20       3       0       0       42       0       71         Future Vol, veh/h       27       114       0       1       346       20       3       0       0       42       0       71         Conflicting Peds, #hr       0
Future Vol, veh/h         27         114         0         1         346         20         3         0         0         42         0         71           Conflicting Peds, #/hr         0<
Conflicting Peds, #/hr         0
Sign Control         Free         Stop         Stop
RT Channelized       -       None       None       R
Storage Length       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       -       0       -       3       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       13       0       0       652       622       133       611       611       41
Veh in Median Storage, #       0       -       0       0       -       0       -       0       -       0 </td
Grade, %         -         0         0         -         0         0         -         0         -         0         -         0<
Peak Hour Factor         86
Heavy Vehicles, %         11         9         0         0         2         15         0         0         0         0         5           Mvmt Flow         31         133         0         1         402         23         3         0         0         49         0         83           Major/Minor         Major1         Major2         Minor1         Minor2           Conflicting Flow All         425         0         0         133         0         0         652         622         133         611         611         414           Stage 1         -         -         -         -         195         95         416         416           Stage 2         -         -         -         -         457         427         195         195           Critical Hdwy         4.21         -         4.1         -         7.1         6.5         6.25         7.1         6.5         6.25         -           Critical Hdwy Stg 1         -         -         -         -         6.1         5.5         -         6.1         5.5         -           Critical Hdwy Stg 2         -         -         - <t< td=""></t<>
Mymt Flow         31         133         0         1         402         23         3         0         0         49         0         83           Major/Minor         Major1         Major2         Minor1         Minor2           Conflicting Flow All         425         0         0         133         0         0         652         622         133         611         611         414           Stage 1         -         -         -         -         -         195         95         -         416         416         -           Stage 2         -         -         -         -         -         -         -         195         195         -         416         416         -           Critical Hdwy         4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2         7.1         6.5         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -
Major/Minor         Major1         Major2         Minor1         Minor2           Conflicting Flow All         425         0         133         0         652         622         133         611         611         414           Stage 1         -         -         -         195         195         -         416         416           Stage 2         -         -         -         -         457         427         -         195         -           Critical Hdwy 4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1
Conflicting Flow All         425         0         0         133         0         0         652         622         133         611         611         414           Stage 1         -         -         -         -         195         195         -         416         416         -           Stage 2         -         -         -         -         457         427         -         195         -           Critical Hdwy 4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5
Conflicting Flow All         425         0         0         133         0         0         652         622         133         611         611         414           Stage 1         -         -         -         -         195         195         -         416         416         -           Stage 2         -         -         -         -         457         427         -         195         -           Critical Hdwy 4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         6.1         5
Stage 1         -         -         -         -         195         195         -         416         416         -           Stage 2         -         -         -         -         457         427         -         195         195         -         Critical Hdwy         4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.25         Critical Hdwy Stg 1         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2
Stage 2         -         -         -         -         457         427         -         195         -           Critical Hdwy         4.21         -         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.25           Critical Hdwy         Stg 1         -         -         -         6.1         5.5         -         6.1         5.5         -           Critical Hdwy Stg 2         -         -         -         -         6.1         5.5         -         6.1         5.5         -
Critical Hdwy         4.21         -         4.1         -         7.1         6.5         6.2         7.1         6.5         6.2           Critical Hdwy         Stg 1         -         -         -         6.1         5.5         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         Critical Hdwy Stg 2         -         -         -         6.1         5.5         -         6.1         5.5         -         -         -         -         -         6.1         5.5         -         6.1         5.5         -         -         -         -         -         6.1         5.5         -         6.1         5.5         -         -         -         -         -         -         6.1         5.5         -
Critical Hdwy Stg 1 6.1 5.5 - 6.1 5.5 - Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 -
Critical Hdwy Stg 2 6.1 5.5 - 6.1 5.5 -
Follow-up Hdwy 2.299 2.2 3.5 4 3.3 3.5 4 3.345
Pot Cap-1 Maneuver 1088 1464 384 405 922 409 411 632
Stage 1 811 743 - 618 595 -
Stage 2
Platoon blocked, %
Mov Cap-1 Maneuver 1088 1464 326 392 922 399 398 632
Mov Cap-2 Maneuver 326 392 - 399 398 -
Stage 1 786 720 - 599 594 -
Stage 2 510 588 - 786 720 -
Approach EB WB NB SB
HCM Control Delay, s 1.6 0 16.2 14.3
HCM LOS C B
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1
Capacity (veh/h) 326 1088 1464 519
HCM Lane V/C Ratio 0.011 0.029 0.001 0.253
HCM Control Delay (s) 16.2 8.4 0 - 7.5 0 - 14.3
HCM Lane LOS CAA-AA-B
HCM 95th %tile Q(veh) 0 0.1 0 1

01/30/2024 Passero Associates Synchro 11 Report Page 9 01/30/2024 Passero Associates

1: Fellows Rd & Per	nfield R	ld					2029 Full Build PM
	+	*	4	Ļ	•	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ĥ			ર્સ	- M		
Traffic Volume (vph)	793	137	49	497	77	31	
Future Volume (vph)	793	137	49	497	77	31	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.980				0.962		
Flt Protected				0.996	0.965		
Satd. Flow (prot)	1846	0	0	1859	1764	0	
Flt Permitted				0.996	0.965		
Satd. Flow (perm)	1846	0	0	1859	1764	0	
Link Speed (mph)	45			45	35		
ink Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%	
Adj. Flow (vph)	881	152	54	552	86	34	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1033	0	0	606	120	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0	Ū		0	12	Ū	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 79.7%			IC	CU Level o	of Service D	)

HCM 6th TWSC	
1: Fellows Rd & Penfield Rd	

### Fellows Rd Properties 2029 Full Build PM

Intersection						
Int Delay, s/veh	9.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1		TIPL	<u>امار ا</u>	Y	ABIA
Traffic Vol, veh/h	793	137	49	497	77	31
Future Vol. veh/h	793	137	49	497	77	31
Conflicting Peds, #/hr		0	49	437	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-	None	- SiOP	None
Storage Length	-	None -	-	None -	- 0	None -
Veh in Median Storage		-		0	0	-
			-	-	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	152	54	552	86	34
Major/Minor	Major1	N	Major2	N	Minor1	
Conflicting Flow All	0	0	1033	0	1617	957
	-	0	1033	-	957	957
Stage 1		-				
Stage 2	-	-	-	-	660	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	681	-	115	315
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	518	-
Platoon blocked, %	-					
Mov Cap-1 Maneuver		-	681	-	102	315
Mov Cap-2 Maneuver		_	-	_	102	
	-	-	-	-	376	-
Stage 1	-	-	-			
Stage 2	-	-	-	-	459	-
Approach	EB		WB		NB	
HCM Control Delay, s			1		131.4	
HCM LOS	0				101.4 F	
					Г	
Minor Lane/Major Mvn	nt I	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		127	-	-	681	-
HCM Lane V/C Ratio		0.945	-	-	0.08	-
HCM Control Delay (s	)	131.4	-	-	10.7	0
	/				B	Ă
HCM Lane LOS		- F				
HCM Lane LOS HCM 95th %tile Q(veh	)	F 6.3	-	-	0.3	- A

01/30/2024 Passero Associates Synchro 11 Report Page 1 01/30/2024 Passero Associates

Lanes, Volumes, Ti 2: Fellows Road & I	0	ed Driv	/ewav				Fellows Rd Properties 2029 Full Build Pl
2. 1 0110110 1 1000 0 0	<u>√</u>	•	<b>†</b>	1	1	ţ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		el el			ŧ	
Traffic Volume (vph)	20	45	60	33	74	87	
Future Volume (vph)	20	45	60	33	74	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.907		0.952				
Flt Protected	0.985					0.978	
Satd. Flow (prot)	1664	0	1773	0	0	1822	
Flt Permitted	0.985					0.978	
Satd. Flow (perm)	1664	0	1773	0	0	1822	
Link Speed (mph)	30		35			35	
Link Distance (ft)	822		1480			908	
Travel Time (s)	18.7		28.8			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	22	49	65	36	80	95	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	0	101	0	0	175	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 25.9%			IC	U Level	of Service	A

01/30/2024 Passero Associates Synchro 11 Report Page 3 HCM 6th TWSC 2: Fellows Road & Proposed Driveway Fellows Rd Properties 2029 Full Build PM

Intersection	_		_			
Int Delay, s/veh	3.7					
			NDT		CD.	ODT
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		4		= 1	र्भ
Traffic Vol, veh/h	20	45	60	33	74	87
Future Vol, veh/h	20	45	60	33	74	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	
Storage Length	0	-	-	-	-	-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	49	65	36	80	95
Major/Minor I	Minor1		Major1		Major2	
		83				0
Conflicting Flow All	338		0	0	101	0
Stage 1	83	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy		3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	976	-	-	1491	-
Stage 1	940	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	620	976	-	-	1491	-
Mov Cap-2 Maneuver	620	-	-	-	-	-
Stage 1	940	-	-	-	-	-
Stage 2	743	-	_			
Oldge 2	145					
Approach	WB		NB		SB	
HCM Control Delay, s	9.7		0		3.5	
HCM LOS	Α					
		NDT		VBLn1	SBL	SBT
Minor Lane/Major Mvm	t	NBT				
o 11 ( 1 ll )		-	-	829	1491	-
Capacity (veh/h)				0.085	0.054	-
HCM Lane V/C Ratio		-				
HCM Lane V/C Ratio HCM Control Delay (s)		-	-	9.7	7.6	0
HCM Lane V/C Ratio					7.6 A 0.2	0 A

01/30/2024 Passero Associates

3: Fellows Road & F	unnan	noau					2029 Full Build Pl
	1	*	Ť	۲	1	Ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- M		4			ę	
Traffic Volume (vph)	18	15	77	19	20	87	
Future Volume (vph)	18	15	77	19	20	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.937		0.974				
Flt Protected	0.974					0.991	
Satd. Flow (prot)	1734	0	1851	0	0	1883	
Flt Permitted	0.974					0.991	
Satd. Flow (perm)	1734	0	1851	0	0	1883	
Link Speed (mph)	40		30			35	
Link Distance (ft)	1350		694			1480	
Travel Time (s)	23.0		15.8			28.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	
Adj. Flow (vph)	22	19	95	23	25	107	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	41	0	118	0	0	132	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	Ŭ	0	J		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: C	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	ion 22.4%			IC	Ulevel	of Service A	4

HCM 6th TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2029 Full Build PM

Intersection						
Int Delay, s/veh	2					
	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WBL M	WDR		NDR	SDL	<u>्ठहा</u>
	<b>₩</b> 18	15	<b>1</b>	19	20	€ 87
Traffic Vol, veh/h		15	77			
Future Vol, veh/h	18	15 0	77	19	20	87
Conflicting Peds, #/hr	0	-	0	0	0	0
	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage,		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	19	95	23	25	107
Major/Minor M	linor1	M	Major1	1	Major2	
	264	107			118	
Conflicting Flow All			0	0	118	0
Stage 1	107	-	-	-		-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	729	953	-	-	1483	-
Stage 1	922	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	716	953	-	-	1483	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	860	-	_			-
Stage 2	000	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.7		0		1.4	
HCM LOS	А					
Minor Lane/Major Mvmt		NBT	NBR\	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	807	1483	-
HCM Lane V/C Ratio		-	-	0.05	0.017	-
		-	-	9.7	7.5	0
HCM Control Delay (s)						
HCM Control Delay (s) HCM Lane LOS		-	-	Α	A	Α
		-	-	A 0.2	A 0.1	A -

01/30/2024 Passero Associates Synchro 11 Report Page 5 01/30/2024 Passero Associates

4: Furman Road & F	Propos	ed Driv	/eway				2029 Full Build Pl
	٦	-	-	×	1	4	
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		ę	¢Î		Y		
Traffic Volume (vph)	9	30	27	1	1	6	
Future Volume (vph)	9	30	27	1	1	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt			0.995		0.882		
Flt Protected		0.989			0.994		
Satd. Flow (prot)	0	1842	1853	0	1633	0	
Flt Permitted		0.989			0.994		
Satd. Flow (perm)	0	1842	1853	0	1633	0	
Link Speed (mph)		30	30		30		
Link Distance (ft)		1350	763		478		
Travel Time (s)		30.7	17.3		10.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	10	33	29	1	1	7	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	43	30	0	8	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Left	Left	Right	Left	Right	
Median Width(ft)		0	0		12		
Link Offset(ft)		0	0		0		
Crosswalk Width(ft)		16	16		16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60			60	60	60	
Sign Control		Free	Free		Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 18.7%			10	CU Level o	of Service /	A

01/30/2024 Passero Associates Synchro 11 Report Page 7 HCM 6th TWSC 4: Furman Road & Proposed Driveway Fellows Rd Properties 2029 Full Build PM

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ર્સ	4Î		Y	
Traffic Vol. veh/h	9	30	27	1	1	6
Future Vol. veh/h	9	30	27		1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length		-		-	0	-
Veh in Median Storage	. # -	0	0	-	Ű	-
Grade, %	-	0	0		0	
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	10	33	29	1	1	7
	10	00	20			
	Major1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	83	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	
Pot Cap-1 Maneuver	1583	-	-	-	919	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	913	1044
Mov Cap-2 Maneuver	-	-	-	-	913	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	970	-
J. J.						
Approach	EB		WB		SB	
HCM Control Delay, s	1.7		0		8.5	
HCM LOS	1.7		U			
HCM LOS					A	
Minor Lane/Major Mvm	it	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)		1583	-	-	-	1023
HCM Lane V/C Ratio		0.006	-	-	-	0.007
HCM Control Delay (s)		7.3	0	-	-	8.5
HCM Lane LOS		А	Α	-	-	Α
HCM 95th %tile Q(veh)	)	0	-	-	-	0
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01/30/2024 Passero Associates

Lane Configurations           Traffic Volume (vph)         89         3           Future Volume (vph)         89         3           Future Volume (vph)         89         3           Future Volume (vph)         1900         15           Lane Util. Factor         1.00         1           Frt         0.5         5           Fly Protected         0.5         5           Satd. Flow (port)         0         18           Link Speed (mph)         0         18           Link Distance (ft)         6         1           Peak Hour Factor         0.88         0           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         Lane Group Flow (vph)         0           Enter Blocked Intersection         No         6	EBT         EBR           ♣         336         5           336         5         5           900         1900         1900           1.00         1.00         1.90           9.990         1877         0           9.990         1877         0           1877         0         35           630         12.3         0.88         0.88           0%         0%         382         6	WBL 0 1900 1.00 0 0 0 0 0 0 8 0% 0%	WBT 213 213 1900 1.00 0.980 1846 1846 35 774 15.1 0.88 1% 242	WBR 37 37 1900 1.00 0 0 0 0 0 0 0 0	NBL 3 1900 1.00 0 0 0 0 0 0 0 0 0 0 0 0	NBT 1 1 1900 1.00 0.964 1832 0.964 1832 0.964 1832 30 513 11.7 0.88	NBR 0 1900 1.00 0 0	SBL 41 1900 1.00 0 0	SBT 0 1900 0.917 0.981 1709 0.981 1709 30 1914 43.5	SBR 67 1900 1.00 0
Traffic Volume (vph)         89         5           Future Volume (vph)         89         3           Ideal Flow (vph)         1900         15           Ideal Flow (vph)         1900         15           Lane Util. Factor         1.00         1           Fit         Totor         1.00         1           Fit         Factor         1.00         1           Fit Protected         0.5         5         5           Satd. Flow (port)         0         18         1           Link Speed (mph)         1         1         1           Link Speed (mph)         101         3         1           Peak Hour Factor         0.88         0         1           Adj. Flow (vph)         101         3         1           Shared Lane Traffic (%)         2         4         1           Lane Group Flow (vph)         01         3         4           Lane Alignment         Left         L         1	336         5           336         5           1900         1900           1998	0 1900 1.00 0 0 0 0 0	213 213 1900 1.00 0.980 1846 35 774 15.1 0.88 1%	37 1900 1.00 0 0 0 0	3 1900 1.00 0 0 0.88	1 1900 1.00 0.964 1832 0.964 1832 30 513 11.7 0.88	0 1900 1.00 0 0	41 1900 1.00 0 0	0 1900 1.00 0.917 0.981 1709 0.981 1709 30 1914 43.5	67 1900 1.00
Traffic Volume (vph)         89         2           Future Volume (vph)         89         3           Ideal Flow (vphpl)         1900         15           Ideal Flow (vphpl)         1900         15           Iane Util. Factor         1.00         1           Fit         0.01         1           Fit Protected         0.02         1           Satd. Flow (port)         0         18           Fit Permitted         0.5         3           Satd. Flow (perm)         0         18           Link Speed (mph)         1         16           Travel Time (s)         1         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         40           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         101         3           Lane Group Flow (vph)         0         4           Lane Alignment         Left         L	336         5           336         5           1900         1900           1998	0 1900 1.00 0 0 0 0 0	213 213 1900 1.00 0.980 1846 35 774 15.1 0.88 1%	37 1900 1.00 0 0 0 0	3 1900 1.00 0 0 0.88	1 1900 1.00 0.964 1832 0.964 1832 30 513 11.7 0.88	0 1900 1.00 0 0	41 1900 1.00 0 0	0 1900 1.00 0.917 0.981 1709 0.981 1709 30 1914 43.5	67 1900 1.00
Ideal Flow (vphpl)         1900         15           Lane Util. Factor         1.00         1           Frt         0.5         1           Fit Protected         0.5         0           Satd. Flow (prot)         0         18           Fit Protected         0.5         0.5           Satd. Flow (prot)         0         18           Link Distance (ft)         0         17           Travel Time (s)         1         1           Peak Hour Factor         0.88         0           Adj. Flow (vph)         101         2           Shared Lane Traffic (%)         Lane Group Flow (vph)         0           Lane Group Flow (vph)         0         4           Enter Blocked Intersection         No           Lane Alignment         Left         L	1900         1900           1.00         1.00           .990 <td>1900 1.00 0 0 0 0 0 0 0 88 0%</td> <td>1900 1.00 0.980 1846 35 774 15.1 0.88 1%</td> <td>1900 1.00 0 0 0 0 0</td> <td>1900 1.00 0 0</td> <td>1900 1.00 0.964 1832 0.964 1832 30 513 11.7 0.88</td> <td>1900 1.00 0</td> <td>1900 1.00 0</td> <td>1900 1.00 0.917 0.981 1709 0.981 1709 30 1914 43.5</td> <td>1900 1.00</td>	1900 1.00 0 0 0 0 0 0 0 88 0%	1900 1.00 0.980 1846 35 774 15.1 0.88 1%	1900 1.00 0 0 0 0 0	1900 1.00 0 0	1900 1.00 0.964 1832 0.964 1832 30 513 11.7 0.88	1900 1.00 0	1900 1.00 0	1900 1.00 0.917 0.981 1709 0.981 1709 30 1914 43.5	1900 1.00
Lane Util. Factor         1.00         1           Frt         0.9           Fit Protected         0.9           Satd. Flow (port)         0         18           Fit Permitted         0.5           Satd. Flow (perm)         0         18           Link Speed (mph)         0         17           Link Distance (ft)         66         7           Peak Hour Factor         0.88         0%           Heavy Vehicles (%)         0%         0%           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         2         1           Lane Group Flow (vph)         0         4           Lane Alignment         Left         L	1.00         1.00           1.99         1.990           1877         0           990         35           630         12.3           0.88         0.88           0%         0%           382         6	1.00 0 0 0.88 0%	1.00 0.980 1846 35 774 15.1 0.88 1%	1.00 0 0 0.88 0%	1.00 0 0	1.00 0.964 1832 0.964 1832 30 513 11.7 0.88	1.00 0 0	1.00 0 0	1.00 0.917 0.981 1709 0.981 1709 30 1914 43.5	1.00
Frt         0.5           Fit Protected         0.5           Satd. Flow (prot)         0         16           Fit Permitted         0.5           Satd. Flow (perm)         0         16           Link Speed (mph)         1         1           Link Distance (ft)         6         6           Travel Time (s)         1         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         0%           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         1         3           Lane Group Flow (vph)         0         4           Later Blocked Intersection         No         1           Lane Alignment         Left         1	.998         .990           .877         0           .990         .990           1877         0           .935         .630           12.3	0 0 0.88 0%	0.980 1846 1846 35 774 15.1 0.88 1%	0 0 0.88 0%	0 0 0.88	0.964 1832 0.964 1832 30 513 11.7 0.88	0	0	0.917 0.981 1709 0.981 1709 30 1914 43.5	C
Fit Protected         0.5           Satd. Flow (prot)         0         18           Fit Permitted         0.5           Satd. Flow (perm)         0         18           Ink Speed (mph)         11         11           Link Distance (ft)         6         6           Travel Time (s)         11         12           Peak Hour Factor         0.88         0           Adj. Flow (vph)         101         2           Shared Lane Traffic (%)         2         2           Lane Group Flow (vph)         0         4           Lane Group Flow (vph)         0         4           Lane Alignment         Left         L	1990           1877         0           1990         0           1877         0           35         630           12.3         0.88           0.88         0.88           0%         0%           382         6	0.88	1846 1846 35 774 15.1 0.88 1%	0 0.88 0%	0	1832 0.964 1832 30 513 11.7 0.88	0	0	0.981 1709 0.981 1709 30 1914 43.5	
Satd. Flow (prot)         0         18           FIt Permitted         0.5           Satd. Flow (perm)         0         18           Link Speed (mph)         1           Link Distance (ft)         6           Travel Time (s)         1           Peak Hour Factor         0.88           Heavy Vehicles (%)         0%           Adj. Flow (vph)         101           Shared Lane Traffic (%)         2           Lane Group Flow (vph)         0           Lane Alignment         Left	1877         0           1990         1877         0           35         630         12.3           0.88         0.88         0.88           0%         0%         382         6	0.88	1846 35 774 15.1 0.88 1%	0 0.88 0%	0	1832 0.964 1832 30 513 11.7 0.88	0	0	1709 0.981 1709 30 1914 43.5	
Fit Permitted         0.5           Satd. Flow (perm)         0           Link Speed (mph)         1           Link Distance (ft)         6           Travel Time (s)         1           Peak Hour Factor         0.88           Adj. Flow (vph)         101           Shared Lane Traffic (%)         2           Lane Group Flow (vph)         0           Lane Alignment         Left	1990           1877         0           35         630           12.3         0.88         0.88           0%         0%         382         6	0.88	1846 35 774 15.1 0.88 1%	0 0.88 0%	0	0.964 1832 30 513 11.7 0.88	0	0	0.981 1709 30 1914 43.5	
Satd. Flow (perm)         0         18           Link Speed (mph)         18           Link Distance (ft)         6           Travel Time (s)         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         101         3           Shared Lane Traffic (%)         101         3           Lane Group Flow (vph)         0         4           Inter Blocked Intersection         No           Lane Alignment         Left         L	1877         0           35         630           12.3         0.88           0%         0%           382         6	0.88	35 774 15.1 0.88 1%	0.88	0.88	1832 30 513 11.7 0.88	-	-	1709 30 1914 43.5	C
Link Speed (mph)           Link Distance (ft)         6           Travel Time (s)         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         0           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         1         3           Lane Group Flow (vph)         0         4           Enter Blocked Intersection         No         1           Lane Alignment         Left         L	35         630           12.3         0.88         0.88           0%         0%         382         6	0.88	35 774 15.1 0.88 1%	0.88	0.88	30 513 11.7 0.88	-	-	30 1914 43.5	C
Link Distance (ft)         Eff           Travel Time (s)         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         0           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         101         3           Lane Group Flow (vph)         0         4           Inter Blocked Intersection         No         ane Alignment	630 12.3 0.88 0.88 0% 0% 382 6	0%	774 15.1 0.88 1%	0%		513 11.7 0.88	0.00		1914 43.5	
Travel Time (s)         1           Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         0           ddj. Flow (vph)         101         3           Shared Lane Traffic (%)         1         3           Lane Group Flow (vph)         0         4           Enter Blocked Intersection         No         1           Lane Alignment         Left         L	12.3 0.88 0.88 0% 0% 382 6	0%	15.1 0.88 1%	0%		11.7 0.88	0.99		43.5	
Peak Hour Factor         0.88         0           Heavy Vehicles (%)         0%         0%           Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         101         3           Lane Group Flow (vph)         0         4           Enter Blocked Intersection         No         100           Lane Alignment         Left         L	0.88 0.88 0% 0% 382 6	0%	0.88 1%	0%		0.88	0.00			
Heavy Vehicles (%)     0%       Adj. Flow (vph)     101     3       Shared Lane Traffic (%)     100     4       Lane Group Flow (vph)     0     4       Inter Blocked Intersection     No       Lane Alignment     Left     L	0% 0% 382 6	0%	1%	0%			0 00			
Adj. Flow (vph)         101         3           Shared Lane Traffic (%)         101         3           Lane Group Flow (vph)         0         4           Enter Blocked Intersection         No         101           Lane Alignment         Left         L	382 6				00/		0.00	0.88	0.88	0.88
Shared Lane Traffic (%) Lane Group Flow (vph) 0 4 Enter Blocked Intersection No Lane Alignment Left L		0	242	40	υ%	0%	0%	0%	0%	0%
Lane Group Flow (vph) 0 4 Enter Blocked Intersection No Lane Alignment Left L				42	3	1	0	47	0	76
Enter Blocked Intersection No Lane Alignment Left L										
Lane Alignment Left L	489 0	0	284	0	0	4	0	0	123	C
	No No	No	No	No	No	No	No	No	No	No
Median Width(ft)	Left Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
	0		0			0			0	
Link Offset(ft)	0		0			0			0	
Crosswalk Width(ft)	16		16			16			16	
Two way Left Turn Lane										
Headway Factor 1.00 1	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph) 15	9	15		9	15		9	15		ç
Sign Control Fi	Free		Free			Stop			Stop	
Intersection Summary										
Area Type: Other										

HCM 6th TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2029 Full Build PM

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Future Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage,		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	101	382	6	0	242	42	3	1	0	47	0	76
Major/Minor N	/lajor1		1	Major2		1	Minor1		Ν	/linor2		
Conflicting Flow All	284	0	0	388	0	0	888	871	385	851	853	263
Stage 1	-	-	-	-	-	-	587	587	-	263	263	-
Stage 2	-	-	-	-	-	-	301	284		588	590	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1290	-	-	1182	-	-	267	291	667	282	299	781
Stage 1	-	-		-	-	-	499	500	-	747	694	-
Stage 2	-	-	-	-	-	-	712	680	-	499	498	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1290	-	-	1182	-	-	222	262	667	259	269	781
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	262	-	259	269	-
Stage 1	-	-	-	-	-	-	449	450	-	672	694	-
Stage 2	-	-	-	-	-	-	643	680	-	448	448	-
Ŭ												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7	_	_	0	_	_	20.9		_	16.2	_	_
HCM LOS	1.7			0			20.9 C			10.2 C		
							U			U		
			501	507	EDE		MOT	WDD	0.01			
Minor Lane/Major Mvmt		VBLn1	EBL	EBT	EBR	WBL	WBT	WBR				_
Capacity (veh/h)		231	1290	-	-	1182	-	-	442			
HCM Lane V/C Ratio			0.078	-	-	-	-	-	0.278			
HCM Control Delay (s)		20.9	8	0	-	0	-	-	16.2			
HCM Lane LOS		С	A	A	-	A	-	-	С			
HCM 95th %tile Q(veh)		0.1	0.3	-	-	0	-	-	1.1			

01/30/2024 Passero Associates Synchro 11 Report Page 9 01/30/2024 Passero Associates

# **APPENDIX F:** LOS CALCULATIONS – FULL BUILD CONDITIONS WITH MITIGATION



Lanes, Volumes, Ti 1: Fellows Rd & Per	0	d					Fellows Rd Properties 2029 Full Build AM - MIT
	-	$\mathbf{\hat{v}}$	4	-	1	1	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	eî		ľ	1	Y		
Traffic Volume (vph)	253	45	13	767	106	40	
Future Volume (vph)	253	45	13	767	106	40	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		0	150		0	0	
Storage Lanes		0	1		1	0	
Taper Length (ft)			25		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.980				0.963		
Flt Protected			0.950		0.965		
Satd. Flow (prot)	1701	0	1805	1863	1766	0	
Flt Permitted			0.950		0.965		
Satd. Flow (perm)	1701	0	1805	1863	1766	0	
Link Speed (mph)	45			45	35		
Link Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	9%	12%	0%	2%	0%	0%	
Adj. Flow (vph)	258	46	13	783	108	41	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	304	0	13	783	149	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12	Ŭ		12	12	Ŭ	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane	Yes			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	ion 55.4%			IC	CU Level	of Service E	3

02/06/2024 Passero Associates Synchro 11 Report Page 1

#### HCM 2010 TWSC 1: Fellows Rd & Penfield Rd

### Fellows Rd Properties 2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	2.3					
2. 2.		EDD	\//DI		ND	
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4	45		1	Y	10
Traffic Vol, veh/h	253	45	13	767	106	40
Future Vol, veh/h	253	45	13	767	106	40
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized		None	-		-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	12	0	2	0	0
Mvmt Flow	258	46	13	783	108	41
Major/Minor M	lajor1	I	Major2	I	Minor1	
Conflicting Flow All	0	0	304	0	1090	281
Stage 1	-	-		-	281	-
Stage 2		-		-	809	
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-		-		5.4	- 0.2
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	_	2.2	_	3.5	3.3
Pot Cap-1 Maneuver		-	1268	-	240	763
Stage 1	-	-	1200	-	771	- 103
Stage 2	-	-	-	-	441	
Platoon blocked, %	-	-	-	-	441	-
	-	-	1268		238	763
Mov Cap-1 Maneuver	-	-		-		
Mov Cap-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	437	-
			WB		NB	
Approach	EB				10 -	
	0		0.1		18.7	
HCM Control Delay, s			0.1			
			0.1		18.7 C	
HCM Control Delay, s HCM LOS	0				С	
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt	0	NBLn1	EBT	EBR	C	WBT
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h)	0	411	EBT	-	C WBL 1268	-
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	0	411 0.362	EBT -	-	C WBL 1268 0.01	-
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	0	411 0.362 18.7	EBT - -	-	C WBL 1268 0.01 7.9	-
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	0	411 0.362	EBT -	-	C WBL 1268 0.01	-

02/06/2024 Passero Associates

2: Fellows Road & F	Propos	ed Dri∖	/eway				2029 Full Build AM - M
	4	•	t	۲	1	Ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- Y		f,			÷.	
Traffic Volume (vph)	32	72	46	11	24	36	
Future Volume (vph)	32	72	46	11	24	36	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.907		0.974				
Flt Protected	0.985					0.980	
Satd. Flow (prot)	1664	0	1814	0	0	1825	
Flt Permitted	0.985					0.980	
Satd. Flow (perm)	1664	0	1814	0	0	1825	
Link Speed (mph)	30		30			30	
Link Distance (ft)	822		1480			908	
Travel Time (s)	18.7		33.6			20.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	35	78	50	12	26	39	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	113	0	62	0	0	65	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60		60	60		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 22.8%			IC	U Level	of Service	A

02/06/2024 Passero Associates Synchro 11 Report Page 3 HCM 2010 TWSC 2: Fellows Road & Proposed Driveway Fellows Rd Properties 2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	TIDIN	1	NUN	ODL	<u>الان</u>
Traffic Vol, veh/h	32	72	<b>₽</b> 46	11	24	€ 36
Future Vol, veh/h	32	72	40	11	24	36
Conflicting Peds, #/hr	32	0	46	0	24	36
Sign Control	-	Stop	-	Free	Free	Free
RT Channelized	Stop -		Free -	None		
	- 0	None	-	None	-	None
Storage Length	-					
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	78	50	12	26	39
Major/Minor	Minor1		Major1		Major2	
						0
Conflicting Flow All	147	56	0	0	62	0
Stage 1	56	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518		-	-	2.218	-
Pot Cap-1 Maneuver	845	1011	-	-	1541	-
Stage 1	967	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	831	1011	-	-	1541	-
Mov Cap-2 Maneuver	831	-		-	-	
Stage 1	967	-	_	_	-	_
Stage 2	917	-	-	_	_	_
Stage 2	917	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		3	
HCM LOS	A					
	~					
Minor Lane/Major Mvm	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	948	1541	-
HCM Lane V/C Ratio		-	-	0.119		-
HCM Control Delay (s)	)	-	-	9.3	7.4	0
HCM Lane LOS		-	-	А	А	Α
HCM 95th %tile Q(veh	)	-	-	0.4	0.1	-
	,					

02/06/2024 Passero Associates

3: Fellows Road & F	Furman	Road					2029 Full Build AM - Mi
	4	*	t	۲	1	ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			÷.	
Traffic Volume (vph)	19	12	45	11	8	60	
Future Volume (vph)	19	12	45	11	8	60	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.947		0.973				
Flt Protected	0.971					0.994	
Satd. Flow (prot)	1676	0	1771	0	0	1800	
Flt Permitted	0.971					0.994	
Satd. Flow (perm)	1676	0	1771	0	0	1800	
Link Speed (mph)	40		30			35	
Link Distance (ft)	1350		694			1480	
Travel Time (s)	23.0		15.8			28.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	
Heavy Vehicles (%)	7%	0%	0%	22%	40%	0%	
Adj. Flow (vph)	20	13	48	12	9	64	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	33	0	60	0	0	73	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	Ŭ	0	Ŭ		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: 0	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	ion 19.9%			IC	U Level o	of Service	A
Analysis Period (min) 15							

Intersection Int Delay, s/veh 2.2 Movement WBL WBR NBT NBR SBL SBT Lane Configurations ¥ Æ Þ Traffic Vol, veh/h 19 12 45 60 11 8 Future Vol, veh/h 19 12 45 11 8 60 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 - ----Veh in Median Storage, # 0 - 0 - - 0 Grade, % 0 - 0 -0 -Peak Hour Factor 94 94 94 94 94 94 Heavy Vehicles, % 7 0 0 22 40 0 Mvmt Flow 20 13 48 12 9 64 Major/Minor Minor1 Major1 Major2 A II 136 54 60

Conflicting Flow All	136	54	0	0	60	0						
Stage 1	54	-	-	-	-	-						
Stage 2	82	-	-	-	-	-						
Critical Hdwy	6.47	6.2	-	-	4.5	-						
Critical Hdwy Stg 1	5.47	-	-	-	-	-						
Critical Hdwy Stg 2	5.47	-	-	-	-	-						
Follow-up Hdwy	3.563	3.3	-	-	2.56	-						
Pot Cap-1 Maneuver	846	1019	-	-	1333	-						
Stage 1	956	-	-	-	-	-						
Stage 2	929	-	-	-	-	-						
Platoon blocked, %			-	-		-						
Mov Cap-1 Maneuver	840	1019	-	-	1333	-						
Mov Cap-2 Maneuver	840	-	-	-	-	-						
Stage 1	956	-	-	-	-	-						
Stage 2	922	-	-	-	-	-						
Approach	WB		NB		SB							
HCM Control Delay, s	9.1		0		0.9							
HCM LOS	А											
Minor Lane/Major Mvm	nt	NBT	NBRWE	RI n1	SBL	SBT						
Capacity (veh/h)			-	901	1333	-			 			
HCM Lane V/C Ratio		-	- 0		0.006							
HCM Control Delay (s)	1	-	-	9.1	7.7	0						
				0.1								

- - A A A - - 0.1 0 -

02/06/2024 Passero Associates Synchro 11 Report Page 5 02/06/2024 Passero Associates

HCM Lane LOS

HCM 95th %tile Q(veh)

HCM 2010 TWSC

3: Fellows Road & Furman Road

Synchro 11 Report Page 6

Fellows Rd Properties

2029 Full Build AM - MIT

4: Furman Road & F	Propos	ed Driv	/eway				2029 Full Build AM - MI
	۶	+	Ļ	•	1	1	
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		ę	4Î		Y		
Traffic Volume (vph)	3	16	22	0	1	9	
Future Volume (vph)	3	16	22	0	1	9	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.877		
Flt Protected		0.993			0.995		
Satd. Flow (prot)	0	1850	1863	0	1625	0	
Flt Permitted		0.993			0.995		
Satd. Flow (perm)	0	1850	1863	0	1625	0	
Link Speed (mph)		30	40		30		
Link Distance (ft)		1350	763		478		
Travel Time (s)		30.7	13.0		10.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	3	17	24	0	1	10	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	20	24	0	11	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Left	Left	Right	Left	Right	
Median Width(ft)		0	0		12		
Link Offset(ft)		0	0		0		
Crosswalk Width(ft)		16	16		16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15			9	15	9	
Sign Control		Free	Free		Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 13.4%			IC	CU Level o	of Service A	

02/06/2024 Passero Associates Synchro 11 Report Page 7 HCM 2010 TWSC 4: Furman Road & Proposed Driveway Fellows Rd Properties 2029 Full Build AM - MIT

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ę	4Î		Y	
Traffic Vol, veh/h	3	16	22	0	1	9
Future Vol, veh/h	3	16	22	0	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage	e,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	3	17	24	0	1	10
	, in the second s			Ū		
		-		-		
_	Major1		Major2		Minor2	
Conflicting Flow All	24	0	-	0	47	24
Stage 1	-	-	-	-	24	-
Stage 2	-	-	-	-	23	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1591	-	-	-	963	1052
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	1000	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	961	1052
Mov Cap-2 Maneuver	-	-		-	961	-
Stage 1	-	-	-	-	997	-
Stage 2		-		-	1000	-
olugo z					1000	
Approach	EB		WB		SB	
HCM Control Delay, s	1.1		0		8.5	
HCM LOS					Α	
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR	SBI n1
Capacity (veh/h)		1591			-	1042
HCM Lane V/C Ratio		0.002				0.01
HCM Control Delay (s)		7.3	0	-	-	8.5
HCM Lane LOS		A	Ă			A
HCM 95th %tile Q(veh)	)	0	-	-	-	0
	)	0		-		0

02/06/2024 Passero Associates

	۶	-	$\mathbf{r}$	1	-	•	1	Ť	1	1	↓	~
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		\$			4			4			4	
Traffic Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Future Volume (vph)	27	114	0	1	346	20	3	0	0	42	0	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt					0.993						0.915	
Flt Protected		0.991						0.950			0.982	
Satd. Flow (prot)	0	1721	0	0	1837	0	0	1805	0	0	1655	(
Flt Permitted		0.991						0.950			0.982	
Satd. Flow (perm)	0	1721	0	0	1837	0	0	1805	0	0	1655	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	11%	9%	0%	0%	2%	15%	0%	0%	0%	0%	0%	5%
Adj. Flow (vph)	31	133	0	1	402	23	3	0	0	49	0	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	426	0	0	3	0	0	132	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		ç
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type: C	ther											
Control Type: Unsignalized												

### HCM 2010 TWSC 5: Roxwell Court/Fellows Road & Whitney Road

### Fellows Rd Properties 2029 Full Build AM - MIT

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol. veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Future Vol, veh/h	27	114	0	1	346	20	3	0	0	42	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length			-	-		-			-	-		-
Veh in Median Storage	. # -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0			0		-	0	
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	11	9	0	0	2	15	0	0	0	0	0	5
Mymt Flow	31	133	0	1	402	23	3	Ő	Ő	49	Ő	83
	<b>U</b>		0			23	3	J			3	00
Major/Minor I	Major1	_	1	Major2		1	Minor1	_	Ν	/linor2		
Conflicting Flow All	425	0	0	133	0	0	652	622	133	611	611	414
Stage 1	-	-	-	-	-	-	195	195	-	416	416	-
Stage 2	-	-	-	-	-	-	457	427	-	195	195	-
Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.299	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.345
Pot Cap-1 Maneuver	1088	-	-	1464	-	-	384	405	922	409	411	632
Stage 1	-	-	-	-	-	-	811	743	-	618	595	-
Stage 2	-	-	-	-	-	-	587	589	-	811	743	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1088	-	-	1464	-	-	326	392	922	399	398	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	326	392	-	399	398	-
Stage 1	-	-	-	-	-	-	786	720	-	599	594	-
Stage 2	-	-	-	-	-	-	510	588	-	786	720	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.6			0			16.2			14.3		
HCM LOS							С			В		
Minor Lane/Major Mvm	t	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR \$	-			
Capacity (veh/h)		326	1088	-	-	1464	-	-	519			
HCM Lane V/C Ratio		0.011	0.029	-	-	0.001	-		0.253			
HCM Control Delay (s)		16.2	8.4	0	-	7.5	0	-	14.3			
HCM Lane LOS HCM 95th %tile Q(veh)		C 0	A 0.1	Α	-	A 0	Α	-	B 1			

02/06/2024 Passero Associates Synchro 11 Report Page 9 02/06/2024 Passero Associates

Lanes, Volumes, Ti <u>1: Fellows Rd &amp; Pe</u> r	0	d					Fellows Rd Properties 2029 Full Build PM - MIT
	+	>	4	+	•	۲	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	4		٦.	<b>↑</b>	۰Y		
Traffic Volume (vph)	793	137	49	497	77	31	
Future Volume (vph)	793	137	49	497	77	31	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		0	150		0	0	
Storage Lanes		0	1		1	0	
Taper Length (ft)			25		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.980				0.962		
Flt Protected			0.950		0.965		
Satd. Flow (prot)	1846	0	1805	1863	1764	0	
Flt Permitted			0.950		0.965		
Satd. Flow (perm)	1846	0	1805	1863	1764	0	
Link Speed (mph)	45			45	35		
Link Distance (ft)	369			524	386		
Travel Time (s)	5.6			7.9	7.5		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	0%	0%	2%	0%	0%	
Adj. Flow (vph)	881	152	54	552	86	34	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1033	0	54	552	120	0	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	12	3		12	12	3	
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane	Yes			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		9	15		15	9	
Sign Control	Free			Free	Stop		
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	ion 62.9%			IC	CU Level o	of Service	B
Analysis Daried (min) 45							. =

02/06/2024 Passero Associates Synchro 11 Report Page 1 HCM 2010 TWSC 1: Fellows Rd & Penfield Rd Fellows Rd Properties 2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	4		٦		Y	
Traffic Vol, veh/h	793	137	49	497	77	31
Future Vol, veh/h	793	137	49	497	77	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage	e,#0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	881	152	54	552	86	34
Major/Minor	Major1	N	Major2	N	/linor1	
Conflicting Flow All	0	0	1033	0	1617	957
Stage 1	-	-	1035	-	957	957
Stage 2	-		-	-	957 660	
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	4.1	-	0.4 5.4	0.2
			-		5.4 5.4	-
Critical Hdwy Stg 2	-	-		-		
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	681	-	115	315
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	518	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	681	-	106	315
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	477	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1		30.7	
HCM LOS	Ŭ				D	
					U	
Minor Lane/Major Mvm	nt I	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		257	-	-	681	-
HCM Lane V/C Ratio		0.467	-	-	0.08	-
HCM Control Delay (s)		30.7	-	-	10.7	-
		-			В	-
HCM Lane LOS HCM 95th %tile Q(veh		D 2.3	-	-	0.3	-

02/06/2024 Passero Associates

2: Fellows Road & F	ropos	ed Driv	/eway				2029 Full Build PM -
	1	•	Ť	۲	1	Ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		el el			ę	
Traffic Volume (vph)	20	45	60	33	74	87	
Future Volume (vph)	20	45	60	33	74	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.907		0.952				
Flt Protected	0.985					0.978	
Satd. Flow (prot)	1664	0	1773	0	0	1822	
Flt Permitted	0.985					0.978	
Satd. Flow (perm)	1664	0	1773	0	0	1822	
Link Speed (mph)	30		35			35	
Link Distance (ft)	822		1480			908	
Travel Time (s)	18.7		28.8			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	22	49	65	36	80	95	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	71	0	101	0	0	175	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0			0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizat	ion 25.9%			IC	U Level	of Service	A

02/06/2024 Passero Associates Synchro 11 Report Page 3 HCM 2010 TWSC 2: Fellows Road & Proposed Driveway Fellows Rd Properties 2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	3.7					
	WBL				CDI	сот
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		45	<b>1</b>	22	74	<b>4</b>
Traffic Vol, veh/h	20 20	45	60	33	74	87
Future Vol, veh/h	20	45 0	60 0	33 0	74	87 0
Conflicting Peds, #/hr	-	-		-	0	-
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	- 0	-	-	- 0
Veh in Median Storage	,# 0 0	-	-		-	0
Grade, %	92	-	0 92	-	-	92
Peak Hour Factor		92		92	92	
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	49	65	36	80	95
Major/Minor I	Minor1	ľ	Major1	l	Major2	
Conflicting Flow All	338	83	0	0	101	0
Stage 1	83	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	976	-	-	1491	-
Stage 1	940	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	620	976	-	-	1491	-
Mov Cap-2 Maneuver	620	-			-	
Stage 1	940	-	-	-	-	-
Stage 2	743	-	_		-	-
olugo z	140					
Approach	WB		NB		SB	
HCM Control Delay, s	9.7		0		3.5	
HCM LOS	A					
Minor Lane/Major Mvm	ıt	NBT	NBR\	VBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	829	1491	-
HCM Lane V/C Ratio		-		0.085		-
HCM Control Delay (s)		-	-	9.7	7.6	0
HCM Lane LOS				A	A	Ă
HCM 95th %tile Q(veh)	1	-	-	0.3	0.2	-
				0.0	0.2	

02/06/2024 Passero Associates

3: Fellows Road & F	unnu	Tiouu					
	4	•	1	1	1	Ŧ	
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- Y		f,			÷.	
Traffic Volume (vph)	18	15	77	19	20	87	
Future Volume (vph)	18	15	77	19	20	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.937		0.974				
Flt Protected	0.974					0.991	
Satd. Flow (prot)	1734	0	1851	0	0	1883	
Flt Permitted	0.974					0.991	
Satd. Flow (perm)	1734	0	1851	0	0	1883	
Link Speed (mph)	40		30			35	
Link Distance (ft)	1350		694			1480	
Travel Time (s)	23.0		15.8			28.8	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	
Adj. Flow (vph)	22	19	95	23	25	107	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	41	0	118	0	0	132	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12	Ŭ	0	Ŭ		0	
Link Offset(ft)	0		0			0	
Crosswalk Width(ft)	16		16			16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15	9		9	15		
Sign Control	Stop		Free			Free	
Intersection Summary							
Area Type: 0	Other						
Control Type: Unsignalized							
Intersection Capacity Utilizati	on 22.4%			IC	U Level	of Service	A

HCM 2010 TWSC 3: Fellows Road & Furman Road Fellows Rd Properties 2029 Full Build PM - MIT

Intersection	_				_	_
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	TIDIN	1	NUN	ODL	<u>الان</u>
Traffic Vol, veh/h	18	15	77	19	20	87
Future Vol, veh/h	18	15	77	19	20	87
Conflicting Peds, #/hr	0	0	0	0	0	0
	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-		-	-	-
Veh in Median Storage,	# 0	-	0	-	-	0
Grade, %	0		0			0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mymt Flow	22	19	95	23	25	107
Major/Minor Mi	inor1	٨	Major1		Major2	
Conflicting Flow All	264	107	0	0	118	0
Stage 1	107	107	-	-	- 110	0
Stage 2	157		-			-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	0.2	-		4.1	
Critical Hdwy Stg 2	5.4	-	-	-	-	-
	3.5	3.3			2.2	
Follow-up Hdwy Pot Cap-1 Maneuver	3.5 729	3.3 953	-	-	1483	-
	922	953	-		1483	-
Stage 1			-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %	740	050	-	-	4.400	-
Mov Cap-1 Maneuver	716	953	-	-	1483	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.7		0		1.4	
HCM LOS	A		-			
		NDT			0.01	ODT
Minor Lane/Major Mvmt		NBT		VBLn1	SBL	SBT
Capacity (veh/h)		-	-	807	1483	-
HCM Lane V/C Ratio		-	-		0.017	-
HCM Control Delay (s)		-	-	9.7	7.5	0
HCM Lane LOS HCM 95th %tile Q(veh)		-	-	A 0.2	A 0.1	A

02/06/2024 Passero Associates Synchro 11 Report Page 5 02/06/2024 Passero Associates

Lane Configurations         Image: Configuration of the second of th	4: Furman Road & F			cway				2020 - 01 2010 - 11 - 11
Line Configurations         Image of the second		•	-	+	•	>	-	
Traffic Volume (vph)       9       30       27       1       1       6         Future Volume (vph)       9       30       27       1       1       6         Ideal Flow (vphpl)       1900       1900       1900       1900       1900         Lane Util. Factor       1.00       1.00       1.00       1.00       1.00         Frt       0.995       0.882         Fit Protected       0.989       0.994         Satd. Flow (prot)       0       1842       1853       0       1633       0         Fit Protected       0.989       0.994       0.994       0.984       0.984       0.984         Satd. Flow (prot)       0       1842       1853       0       1633       0       11nk Speed (mph)       30       30       30       11nk Speed (mph)       30.7       17.3       10.9         Peak Hour Factor       0.92       0.92       0.92       0.92       0.92       0.92       0.92       1.02         Lane Group Flow (vph)       10       33       29       1       1       7         Lane Group Flow (vph)       0       43       30       0       8       0         Lane Group Fl	Lane Group	EBL	EBT	WBT	WBR		SBR	
Future Volume (vph)         9         30         27         1         1         6           Iddeal Flow (vphpi)         1900         1900         1900         1900         1900         1900           Lane Util. Factor         1.00         1.00         1.00         1.00         1.00         1.00           Fit         0.995         0.882         0.994         5         5         5           Satd. Flow (port)         0         1842         1853         0         1633         0           Link Speed (mph)         30         30         30         10.994         5         7         1         7         7         1         7         5         5         5         7         7         3         10.9         9         2         9         2         9         2         9         2         9         2         9         2         10         1         7         5 <td>Lane Configurations</td> <td></td> <td>ę</td> <td>4Î</td> <td></td> <td>Y</td> <td></td> <td></td>	Lane Configurations		ę	4Î		Y		
Ideal Flow (vphpl)         1900         1900         1900         1900         1900         1900           Lane Util. Factor         1.00         1.00         1.00         1.00         1.00         1.00           Fit         0.995         0.882         0.994         0.994         0.994           Satd. Flow (prot)         0         1842         1853         0         1633         0           Fit Preticted         0.989         0.994         0.994         0.994         0.994         0.904           Satd. Flow (perm)         0         1842         1853         0         1633         0         0           Link Distance (ft)         1350         763         478         10.9         9         9           Peak Hour Factor         0.92         0.92         0.92         0.92         0.92         0.92           Adj. Flow (vph)         10         33         29         1         1         7           Shared Lane Traffic (%)         10         33         20         1         1         7           Lane Alignment         Left         Left         Right         Median Width(ft)         0         0         1           Link Offset(ft)	Traffic Volume (vph)	9	30	27	1	1	6	
Lane Util. Factor         1.00         1.00         1.00         1.00         1.00         1.00           Frt         0.995         0.882         0.994 <th< td=""><td>Future Volume (vph)</td><td>9</td><td>30</td><td>27</td><td>1</td><td>1</td><td>6</td><td></td></th<>	Future Volume (vph)	9	30	27	1	1	6	
Frit         0.995         0.882           Fil Protected         0.989         0.994           Satd. Flow (prot)         0         1842         1853         0         1633         0           Fil Permitted         0.989         0.994         0.994         0.994         0.994         0.994           Satd. Flow (perm)         0         1842         1853         0         1633         0           Link Speed (mph)         30         30         30         10.99         0.994         0.994           Travel Time (s)         30.7         17.3         10.9         0.904         0.92	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Fit Protected     0.989     0.994       Satd. Flow (prot)     0     1842     1853     0     1633     0       Fit Permitted     0.989     0.994     0.994     0.994     0.994       Satd. Flow (perm)     0     1842     1853     0     1633     0       Link Speed (mph)     30     30     30     1633     0       Link Speed (mph)     30     30     30     30       Travel Time (s)     30.7     17.3     10.9       Peak Hour Factor     0.92     0.92     0.92     0.92       Adj. Flow (vph)     10     33     29     1     1       Shared Lane Traffic (%)     Lane Group Flow (vph)     0     43     30     0     8       Lane Group Flow (vph)     0     43     30     0     8     0       Enter Blocked Intersection     No     No     No     No     No       Lane Group Flow (vph)     0     12     1     1       Link Disteit(ft)     0     0     12     1       Link Offseit(ft)     0     0     0     0       Crosswalk Width(ft)     16     16     16       Two way Left Turn Lane     Headway Factor     1.00     1.00	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Satd. Flow (prot)         0         1842         1853         0         1633         0           FI Permitted         0.989         0.994         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992         0.992 <td< td=""><td>Frt</td><td></td><td></td><td>0.995</td><td></td><td>0.882</td><td></td><td></td></td<>	Frt			0.995		0.882		
Fit Permitted       0.989       0.994         Satd. Flow (perm)       0       1842       1853       0       1633       0         Link Speed (mph)       30       30       30       1633       0         Link Speed (mph)       30       30       30       1633       0         Link Distance (ft)       1350       763       478         Travel Time (s)       30.7       17.3       10.9         Peak Hour Factor       0.92       0.92       0.92       0.92       0.92         Adj. Flow (vph)       10       33       29       1       7         Shared Lane Traffic (%)       10       33       0       8       0         Enter Blocked Intersection       No       No       No       No       No         Lane Alignment       Left       Left       Right       Kight         Median Width(ft)       0       0       12       11         Link Offset(ft)       0       0       0       0         Crosswalk Width(ft)       16       16       16       16         Headway Left Turn Lane       Headway Eator       1.00       1.00       1.00       1.00         Headway Ee	Flt Protected		0.989			0.994		
Satd. Flow (perm)         0         1842         1853         0         1633         0           Link Speed (mph)         30	Satd. Flow (prot)	0		1853	0		0	
Link Speed (mph)         30         30         30         30           Link Distance (ft)         1350         763         478           Travel Time (s)         30.7         17.3         10.9           Peak Hour Factor         0.92         0.92         0.92         0.92           Adj. Flow (vph)         10         33         29         1         1           Shared Lane Traffic (%)                Lane Group Flow (vph)         0         43         30         8         0           Enter Blocked Intersection         No         No         No         No         No           Link Offset(ft)         0         0         12             Link Offset(ft)         0         0         0         0         Crosswalk Width(ft)         16         16           Two way Left Turn Lane	Flt Permitted							
Link Distance (ft)         1350         763         478           Travel Time (s)         30.7         17.3         10.9           Peak Hour Factor         0.92         0.92         0.92         0.92           Adj. Flow (vph)         10         33         29         1         1           Shared Lane Traffic (%)                Lane Group Flow (vph)         0         43         30         0         8         0           Enter Blocked Intersection         No         No         No         No         No         No           Median Width(ft)         0         0         12              Link Offset(ft)         0         0         0         12             Link Offset(ft)         0         0         0         0             Vow way Left Turn Lane                  Headway Factor         1.00         1.00         1.00         1.00         1.00               Trossealk Width(ft)         60         60 <td< td=""><td>Satd. Flow (perm)</td><td>0</td><td>1842</td><td>1853</td><td>0</td><td>1633</td><td>0</td><td></td></td<>	Satd. Flow (perm)	0	1842	1853	0	1633	0	
Travel Time (s)       30.7       17.3       10.9         Peak Hour Factor       0.92       0.92       0.92       0.92       0.92         Adj. Flow (vph)       10       33       29       1       1       7         Shared Lane Traffic (%)       10       33       29       1       1       7         Lane Group Flow (vph)       0       43       30       0       8       0         Enter Blocked Intersection       No       No       No       No       No       No         Median Width(ft)       0       0       12       12       12       12         Link Offset(ft)       0       0       0       0       12       13       10         Headway Left Turn Lane       Headway Left Turn Lane       Headway Edt       1.00       1.00       1.00       1.00       1.00         Tuming Speed (mph)       60       60       60       60       60       50       50	Link Speed (mph)		30	30		30		
Peak Hour Factor         0.92         0.92         0.92         0.92         0.92         0.92           Adj. Flow (vph)         10         33         29         1         1         7           Shared Lane Traffic (%)         Lane Group Flow (vph)         0         43         30         0         8         0           Enter Blocked Intersection         No         No         No         No         No         No           Lane Alignment         Left         Left         Left         Right         Left         Right           Median Width(ft)         0         0         12         1         16         16         16           Tros way Left Turn Lane         Headway Factor         1.00         1.00         1.00         1.00         1.00         1.00           Turning Speed (mph)         60	Link Distance (ft)		1350	763		478		
Adj. Flow (vph)       10       33       29       1       1       7         Shared Lane Traffic (%)       Lane Group Flow (vph)       0       43       30       0       8       0         Enter Blocked Intersection       No       No       No       No       No       Lane Alignment       Left       Left       Right         Median Width(ft)       0       0       12       12       12       16       16       16       10       100	Travel Time (s)		30.7	17.3		10.9		
Shared Lane Traffic (%)           Lane Group Flow (vph)         0         43         30         0         8         0           Enter Blocked Intersection         No         No         No         No         No         No           Lane Alignment         Left         Left         Left         Right         Left         Right           Median Width(ft)         0         0         12         12         12         12           Link Offset(ft)         0	Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Enter Blocked Intersection         No         No <th< td=""><td>Adj. Flow (vph)</td><td>10</td><td>33</td><td>29</td><td>1</td><td>1</td><td>7</td><td></td></th<>	Adj. Flow (vph)	10	33	29	1	1	7	
Enter Blocked Intersection         No         No <th< td=""><td>Shared Lane Traffic (%)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Shared Lane Traffic (%)							
Lane Alignment         Left         Left         Right         Left         Right           Median Width(ft)         0         0         12           Link Offset(ft)         0         0         0           Crosswalk Width(ft)         16         16         16           Two way Left Turn Lane	Lane Group Flow (vph)	0	43	30	0	8	0	
Median Width(ft)         0         0         12           Link Offset(ft)         0         0         0           Crosswalk Width(ft)         16         16         16           Two way Left Turn Lane	Enter Blocked Intersection			No	No	No	No	
Link Offset(ft)         0         0         0           Crosswalk Width(ft)         16         16         16           Two way Left Turn Lane	Lane Alignment	Left	Left	Left	Right	Left	Right	
Crosswalk Width(ft)         16         16         16           Two way Left Turn Lane         1.00         1.00         1.00         1.00           Headway Factor         1.00         1.00         1.00         1.00           Turning Speed (mph)         60         60         60           Sign Control         Free         Free         Stop	Median Width(ft)		0	0		12		
Two way Left Turn Lane           Headway Factor         1.00         1.00         1.00         1.00           Turning Speed (mph)         60         60         60           Sign Control         Free         Ftee         Stop	Link Offset(ft)		0	0		0		
Headway Factor         1.00         1.00         1.00         1.00         1.00           Turning Speed (mph)         60         60         60         60         60         60         50 <td></td> <td></td> <td>16</td> <td>16</td> <td></td> <td>16</td> <td></td> <td></td>			16	16		16		
Turning Speed (mph) 60 60 60 60 Sign Control Free Free Stop								
Sign Control Free Free Stop	Headway Factor		1.00	1.00				
· ·	Turning Speed (mph)	60			60	60	60	
Intersection Summary	Sign Control		Free	Free		Stop		
	Intersection Summary							
	Control Type: Unsignalized	on 19 70/			10		of Convice	٨
Control Type: Unsignalized Intersection Capacity Utilization 18.7% ICU Level of Service A	intersection capacity Utilizati	011 10.7 %			I.	O Level (	JI SELVICE	A

02/06/2024 Passero Associates Synchro 11 Report Page 7 HCM 2010 TWSC 4: Furman Road & Proposed Driveway Fellows Rd Properties 2029 Full Build PM - MIT

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	LDL	<u>حما</u>	100 100	NDI	<u>→</u>	ODI
Traffic Vol, veh/h	9	€ 30	₽ 27	1		6
Future Vol. veh/h	9	30	27	1	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-		- Stop	None
Storage Length		-		NUILE -	- 0	-
Veh in Median Storage,		0	0	-	0	-
Grade. %	<i>π</i> -	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	10	33	29	1	1	7
	10	00	25			,
	/lajor1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	83	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
	2.218	-	-	-	3.518	
Pot Cap-1 Maneuver	1583	-	-	-	919	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	913	1044
Mov Cap-2 Maneuver	-	-	-	-	913	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	970	-
	EB		WB		SB	
Annroach					8.5	
Approach			0			
HCM Control Delay, s	1.7		0			
			0		8.5 A	
HCM Control Delay, s HCM LOS	1.7		Ū		A	
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt	1.7	EBL	0 EBT	WBT		-
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h)	1.7	1583	Ū	WBT	A WBR	1023
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	1.7	1583 0.006	EBT -		A WBR	1023 0.007
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)	1.7	1583 0.006 7.3	EBT - - 0	-	A WBR	1023 0.007 8.5
HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	1.7	1583 0.006	EBT -	-	A WBR	1023 0.007

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations		\$			4			4			4	
Traffic Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Future Volume (vph)	89	336	5	0	213	37	3	1	0	41	0	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
Frt		0.998			0.980						0.917	
Flt Protected		0.990						0.964			0.981	
Satd. Flow (prot)	0	1877	0	0	1846	0	0	1832	0	0	1709	(
Flt Permitted	-	0.990		-			-	0.964			0.981	
Satd, Flow (perm)	0	1877	0	0	1846	0	0	1832	0	0	1709	(
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		630			774			513			1914	
Travel Time (s)		12.3			15.1			11.7			43.5	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	101	382	6	0	242	42	3	1	0	47	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	284	0	0	4	0	0	123	(
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Righ
Median Width(ft)		0	Ŭ		0	Ŭ		0	J		0	Ŭ
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		ç
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type: O	ther											
Control Type: Unsignalized												

HCM 2010 TWSC 5: Roxwell Court/Fellows Road & Whitney Road Fellows Rd Properties 2029 Full Build PM - MIT

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Future Vol, veh/h	89	336	5	0	213	37	3	1	0	41	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-			-			-	-		-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	101	382	6	0	242	42	3	1	0	47	0	76
Major/Minor N	/lajor1			Major2		1	Minor1		ſ	/linor2		
Conflicting Flow All	284	0	0	388	0	0	888	871	385	851	853	263
Stage 1	- 204	-	-		-	-	587	587		263	263	- 200
Stage 2	-	-		-	-	-	301	284	-	588	590	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-			-			6.1	5.5	- 0.2	6.1	5.5	- 0.2
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2			2.2			3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1290	-	-	1182	-	-	267	291	667	282	299	781
Stage 1	- 12.00	-		- 102	-	-	499	500	- 007	747	694	-
Stage 2	-	-	-	-	-	-	712	680	-	499	498	-
Platoon blocked, %		-	-		-	-		200				
Mov Cap-1 Maneuver	1290	-	-	1182	-	-	222	262	667	259	269	781
Mov Cap-2 Maneuver	-	-	-	-	-	-	222	262	-	259	269	-
Stage 1	-	-	-	-	-	-	449	450	-	672	694	-
Stage 2	-	-	-		-	-	643	680	-	448	448	-
Approach	EB			WB		_	NB			SB		_
HCM Control Delay, s	1.7			0			20.9			16.2		
HCM LOS							С			С		
Minor Lane/Major Mvm	t I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			_
Capacity (veh/h)		231	1290	-	-	1182	-	-	442			
HCM Lane V/C Ratio		0.02	0.078		-	-	-		0.278			
HCM Control Delay (s)		20.9	8	0	-	0	-	-	16.2			
HCM Lane LOS		C	A	A		A	-		C			
HCM 95th %tile Q(veh)		0.1	0.3		-	0	-	-	1.1			

02/06/2024 Passero Associates Synchro 11 Report Page 9 02/06/2024 Passero Associates