

**TOWN OF HERNDON, VIRGINIA
WORK SESSION AGENDA
HERNDON POLICE DEPARTMENT – COMMUNITY ROOM
397 HERNDON PARKWAY
June 7, 2022
7:00 PM**

CALL TO ORDER

1. Roll Call & Determination of Quorum

5:30 PM - CLOSED MEETING

2. A closed meeting as provided under Section 2.2-3711(A)(1) of the Code of Virginia pertaining to discussion of a specific public employee relative to an annual performance review

PUBLIC HEARINGS

3. Ordinance 22-O-13, to consider Zoning Map Amendment ZMA #21-01, 315 Elden Street, from CS (Commercial Services) to PD-UR (Planned Development – Urban Residential) with proffered conditions, to allow the conversion of an existing hotel to multi-family residential with a workforce housing component (***continued from May 24, 2022***)
4. Resolution 22-G-34, to consider Special Exception Application SE #22-01, 315 Elden Street, to allow for development in the FPO (Floodplain Overlay District), subject to approval of Zoning Map Amendment ZMA #21-01, which is being reviewed concurrently with this case (***continued from May 24, 2022***)
5. Ordinance 22-O-14, to amend and reenact Chapter 42 (MOTOR VEHICLES AND TRAFFIC), of the Code of Herndon, Article IV (Stopping, Standing, Parking), Division 4 (Residential Permit Parking), Section 42-223 (Designated Residential Parking Zones), to designate a new residential parking zone to be known as the “Leona Lane Zone”

CONSENT

6. Resolution 22-G-43, to award a Contract for Smart City Services RFP #22-12
7. Resolution 22-G-44, to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and Arts Herndon, Inc., to extend the expiration date to June 30, 2023 for space at 750 Center Street
8. Resolution 22-G-45, to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 750 Center Street

9. Ordinance 22-O-15, to approve and authorize the Mayor to sign a Third Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for rehearsal
10. Ordinance 22-O-16, to approve and authorize the Mayor to sign a Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for storage
11. Proclamation, to recognize Lesbian, Gay, Bisexual & Transgender (LGBTQ+) Pride Month, June 2022

ROUNDTABLE



Elizabeth M. Gilleran, AICP
Director of Community Development
T (703) 787-7380
F (703) 481-5280
community.development@herndon-va.gov

TOWN COUNCIL
Sheila A. Olem, Mayor
Cesar del Aguila, Vice Mayor
Naila Alam
Pradip Dhakal
Signe Friedrichs
Sean M. Regan
Jasbinder Singh

May 27, 2022

Ken Wire
Wire Gill LLP.
1750 Tysons Boulevard, Suite 1500
Tysons, VA 22102

RE: Ordinance, to consider Zoning Map Amendment, **ZMA #21-01, 315 Elden Street**, a zoning map amendment from CS, Commercial Services, to PD-UR, Planned Development – Urban Residential, with proffered conditions to allow the conversion of an existing hotel to multi-family residential with a workforce housing component. The site is approximately 6.4 acres and is currently improved with 168 rooms spread across 11 buildings. The proposed conversion would result in up to 174 dwelling units (28 dwelling units per acre). The application includes requests for modifications to the following sections of the zoning ordinance: Section 78-51.1(e) regarding maximum setback from a right-of-way and minimum separation between structures, Section 78-100.2 regarding minimum parking requirements, and Section 78-110.4(d) regarding perimeter buffer strips. The property is located at the southwest corner of the Elden Street and Herndon Parkway intersection and is bordered by Grove Street to the south. Fairfax County Tax Map Reference Number 0171-02-0007. Agent: Ken Wire, Wire Gill LLP. Applicant and property owner: Elden Street Owner, LLC.

Dear Ken Wire,

This is to notify you that at its public hearing held on Tuesday, May 24, 2022, the Herndon Town Council **continued, Zoning Map Amendment, ZMA #21-01**.

Therefore, your above-referenced application has been scheduled to be heard before the Herndon Town Council on Tuesday, June 14, 2022 at 7:00 p.m. The meeting will be held in the Herndon Council Chambers Building, located at 765 Lynn Street, Herndon, Virginia. You, or a representative, are required to be present at the public hearing to answer any questions the council members may have.

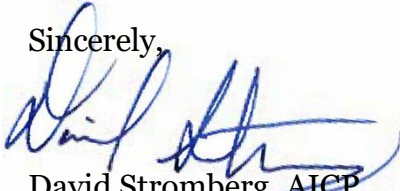
Your application will also be discussed informally by the Herndon Town Council at a work session on Tuesday, June 7, 2022 at 7:00 p.m. in the Town of Herndon Police Department Community Room, located at 397 Herndon Parkway, Herndon, Virginia. Protocol prohibits applicants or their representatives from speaking or presenting information at the work session unless the Mayor makes such a request. Participation of this type is reserved for the public hearing.

ZMA# 21-01, 315 Elden Street

Application materials and the staff report will be available to applicants and the public on the Town's website at <https://www.herndon-va.gov/government/mayor-town-council/agendas-minutes-webcasts> the Friday prior to the work session.

Please contact the Department of Community Development at 703.787.7380 or at planning.commission@herndon-va.gov with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Stromberg", is written over a light blue circular stamp.

David Stromberg, AICP
Zoning Administrator

c: William H. Ashton II, Town Manager (via-email)

c: Elden Street Owner LLC
4949 N. Niagara Street, Suite 300
Denver, CO 80237

Peter Kleeblatt
Elden Street Owner LLC
900 17th St., NW #1050
Washington, DC 20006

Greg Ellwood & Mike Birkland
Bohler Engineering
12825 Worldgate Drive, Suite 700
Herndon, VA 20170

Kevin Fellin
Wells & Associates
11220 Assett Loop, Suite 202
Manassas, VA 20109

TOWN OF HERNDON, VIRGINIA

ORDINANCE

April 25, 2022

Ordinance- to approve Zoning Map Amendment ZMA #21-01, 315 Elden Street, a zoning map amendment from CS, Commercial Services, to PD-UR, Planned Development Urban Residential, with proffered conditions to allow the conversion of an existing hotel to multi-family residential with a workforce housing component.

In adopting this Ordinance, the Town Council has considered the factors set out in 15.2-2284, Code of Virginia (1950) as amended.

BE IT ORDAINED by the Town Council of the Town of Herndon, Virginia that:

- A. The zoning of the property described below, lying in the Town of Herndon, Fairfax County, Virginia, is amended to allow residential use with zoning ordinance modifications as proposed in the Elden Street Owner, LLC/Wells & Associates/Wire Gill LLP/Bohler Generalized Development Plan dated March 2, 2022, and the Proffer Statement dated May 11, 2022 of ZMA #21-01, and in accordance with Section 78-51.1 and 78-155.1 of the Town of Herndon Zoning Ordinance.

The property is shown in the above referenced Generalized Development Plan and described in the land records of Fairfax County in Deed Book 25808 on page 1018. The Fairfax County Tax Map Number is 0171-02-0007 and the total land area is 6.394 acres.

- B. This rezoning shall be governed by this ordinance, the Town of Herndon Zoning Ordinance, the above referenced Proffer Statement for ZMA #21-01, and the above referenced Generalized Development Plan for ZMA #21-01. The Proffer Statement is included as an attachment to this ordinance. This Zoning Map Amendment is consistent with the adopted 2030 Comprehensive Plan of the Town of Herndon.
- C. The Town Council approves the following modifications to the zoning regulations, as allowed under Section 78-50.2(d):
- i. A modification to Section 78-100.2 to allow a minimum parking requirement of 184 parking spaces.
 - ii. A modification of Section 78-51.1(e) to allow a maximum front setback of 85 feet from the right-of-way and to allow a 12-foot separation distance between structures.
 - iii. A modification to Section 78-110.4(e)(3)(b) to allow a 7.5-foot buffer.

- iv. A modification to Section 78-110.4 to allow a planting plan that is in substantial conformance with Sheet L-2 of the GDP.
- D. As to the modifications set out in item C. above, the Town Council finds that such modifications will afford equal or greater assurance of meeting the goals of the zoning ordinance, Town of Herndon, Virginia, as set out in the preamble of that ordinance.
- E. This ordinance shall be effective on and after its adoption.

[Insert Proffer Statement]

DRAFT PROFFERS
315 Elden Street Adaptive Reuse
May 11, 2022

Pursuant to Section 15.2-2303 of the Code of Virginia (1950, as amended) and Section 78-51.1 of the Town of Herndon Zoning Ordinance, as amended (the "Zoning Ordinance"), the undersigned, for themselves and their successors and/or assigns (referred to hereafter, both collectively and, where appropriate, individually, as the "Applicant"), hereby proffers that the development (the "Development") of the parcels that are the subject of this application, which are shown on the Fairfax County 2021 Real Property Map as parcels 017-1 ((02)) 0007 (the "Property") shall be in substantial conformance with the conditions set forth below (the "Proffers") if, and only if, the rezoning of the Property to Planned Development – Urban Residential ("PD-UR") and Zoning Map Amendment # 21-01 (the "Application") are approved by the Town Council.

1. DEVELOPMENT PLAN.

- a. The Property shall be developed in substantial conformance with the development plan entitled General Development Plan for 315 Elden Street Adaptive Reuse prepared by Bohler dated March 02, 2022 (the "Development Plan") and these Proffers. It is understood by the Applicant that all other applicable regulations and policies governing land development within the Town of Herndon (the "Town") shall apply to the Property and its development unless specifically modified by the language of this approval.
- b. Minor modifications of the Development Plan may be permitted without the need for an amendment to this approval when necessitated by final engineering or site design provided that the development is in substantial conformance with the Development Plan, these Proffers, and as approved by the Architectural Review Board ("ARB"), if applicable. Substantial conformity shall be determined as provided in the Zoning Ordinance.

2. PERMITTED USES.

- a. Unless modified by an amendment to the approved Development Plan, any use or combination of uses permitted in the PD-UR Zone may be established on the Property, with the exception of retail sales, which shall not be permitted

3. WORKFORCE HOUSING.

a. NUMBER OF UNITS.

- i. The Applicant shall provide no less than 50% of the total number of residential units on the Property as dedicated Workforce Dwelling Units (WDUs). The number of WDU units will be based upon the final number of total units that the Applicant constructs on the Property, not to exceed

170 units.

- ii. The WDU units will be distributed across the Property and no fewer than 20% of any unit type will be allocated as WDUs.
- iii. The WDU will have the same level of interior finishes and access to Property amenities as the market rate units.
- iv. Units designated as WDU units may change as residents move in and out of the building or have incomes that exceed AMI limits.

b. AFFORDABILITY.

- i. The maximum rent allowed for the WDUs will be affordable to households earning up to 80% of Area Median Income ("AMI"). Affordable means those households spend up to 30% of their gross annual income towards rent. AMI and maximum rent for such units is established annually by the non-profit Virginia Housing for the Washington Metropolitan Statistical Area and is based on number of persons in each household.
- ii. The maximum rent allowed for the WDUs will be limited to the annual Virginia Housing AMI limits.

c. TERM.

- i. The WDUs in this program will be provided for 30 years beginning with the occupancy of the first WDU unit.

d. WDU PROGRAM MANAGEMENT.

- i. Prior to occupancy of any market rate or WDU unit, the Applicant shall enter into a written agreement (WDU Agreement) with the Town of Herndon regarding management of this WDU Proffer commitment. The WDU Agreement shall address the following to the satisfaction of the Town:
 - 1. Applicant's process for verifying resident income and eligibility to lease WDU unit.
 - 2. Reporting requirements to Town upon lease up and, no less than annually thereafter, to verify compliance with these WDU Proffers. Reporting to include number of units leased, household size, household income and term of lease.

3. Process for periodic Town inspection of units and rental records.

4. Procedures and guidelines in the event that individuals or families already in the WDU program exceed the income limits.

Individuals or families who initially qualify for a WDU unit and then have increase in income beyond the 80% AMI limit will have the option of staying within the same unit for one additional year at the rental rates under these Proffers. After which that unit will be reclassified as a market rate unit, and the Applicant will need to provide a replacement WDU unit within 30 days.

e. COVENANT.

- i. The Applicant shall record a covenant memorializing the Property's commitment for 50% of residential units to be set aside as Workforce Dwelling Units for a period of 30 years beginning with the occupancy of the first WDU unit.

4. ARCHITECTURE AND SITE DESIGN

- a. The final architectural treatment and exterior design of all buildings and site amenities within the Development Plan shall create a sense of identity and place through the use of unifying elements such as color, materials, and landscaping as generally reflected in the exhibits contained in the Development Plan, including Correspondence Sheet C-7.
- b. Refuse and Recycling Enclosure. The Development Plan designates a general location and general design details for a refuse and recycling enclosure as shown on Sheet C-3. The existing dumpster enclosure in the northeast quadrant of the site shall be reused to provide more proximity to refuse service for all residents. The refuse and recycling will be serviced by a private provider at a frequency that is sufficient to prevent the accumulation of refuse or recycling outside of any dumpster on the property.

5. TRANSPORTATION.

- a. Transportation Demand Management (TDM). The TDM Plan will include the below elements:
 - a. Contributions to resident Metro fare cards.
 - b. Contributions to County and WMATA bus service fare.
 - c. Carpool parking space.

- d. Rideshare drop-off area in northeast corner of site
 - e. New resident information packets regarding all of the above and additional information about transit, carpool, vanpool, and bicycle options.
- b. Bicycles. As shown in the GDP, the applicant shall provide (3) bike parking pads onsite, near the street frontages to provide a total of (12) bike parking spaces. In addition, the applicant shall provide a secure, weather-protected bike parking for at least (48) bikes as shown on sheet C-7, and bike parking within an existing parking space for at least (12) bike parking spaces. A bicycle repair station shall be provided for bicycle repair and maintenance. The above facilities shall be provided prior to the first certificate of occupancy.
- c. New Pedestrian Infrastructure. New ADA-accessible pedestrian connections shall be constructed to access the public sidewalks along Elden Street, Grove Street, and Herndon Parkway and interior crosswalks shall be added as shown on GDP sheet C-3. The above facilities shall be provided prior to the first certificate of occupancy.
- d. Dedication. Approximately 884 square feet of land abutting the existing Elden Street public right-of-way along the western portion of the property's frontage will be dedicated to the Town of Herndon at no cost to the Town. See GDP sheet C-3. The approved plat and deed of dedication shall be recorded prior to approval of the site plan.
- e. Bus Stop. The Applicant shall provide a \$10,000 monetary contribution to the Town for the improvement and/or relocation of the existing bus stop along Herndon Parkway currently in front of the office property to the southeast at Tax Map #017-1 ((06)) G. The above contribution shall be provided prior to the issuance of the first certificate of occupancy.

6. GREEN BUILDING.

In furtherance of the Green Building goals of the Town, the Applicant shall provide each residential building with energy efficient light fixtures and appliances. In addition, low-flow toilets and sinks shall be provided in each residential building.

7. UNIVERSAL DESIGN.

In furtherance of the Urban Design objectives of the Planned Development - Urban Residential District, the Applicant shall provide for Universal Design features within select residential units. This includes a commitment to provide three (3) ground floor Accessible units. In addition, all public open spaces will be Accessible. Finally, all ground floor units will apply the "adaptable" concept identified by the Fair Housing Act. Some examples of "adaptable" design concepts are walls that provide framing for future grab bars in bathrooms, lever handles on doors and faucets, and electrical wall switches requiring less dexterity by users.

8. CONTRIBUTIONS.

- a. Recreation/Community Amenities/Civic Facilities. The applicant shall commit to maintaining the extensive existing onsite resident amenities. These high-quality amenities will be available to all residents and include outdoor patios with seating, barbecue grills, lighting, pavers, and trash receptacles, an outdoor pool, an outdoor sport court, and other outdoor gathering areas with seating.
- b. Offsite Recreation Contribution. Prior to the issuance of the first certificate of occupancy, the Applicant must contribute a lump sum of \$350 per market-rate residential unit to the Town of Herndon for use at off-site recreational facilities within the Town.
- c. School Contribution.
 - i. Prior to the issuance of the first certificate of occupancy, the Applicant will contribute funds for (19) nineteen students. The contribution amount is \$232,978.00. This number was derived from the latest Fairfax County Public Schools Student Yield Ratio for mid/high-rise multifamily, multiplied by the total number of residential units constructed (170), multiplied by \$12,262.00 per student generated, per the Residential Development Criteria Implementation Motion adopted by the Fairfax County Board of Supervisors on January 7, 2003, as amended, to the Board of Supervisors for transfer to the Fairfax County School Board to be used for capital improvements and capacity enhancements to schools that serve the Town of Herndon. The contributions will be based on the actual number of residential units constructed, as the total amount may vary. Following approval of this Development Plan and prior to the Applicant's payment of the amount(s) set forth in this Proffer, if Fairfax County should modify the ratio of students per units of the amount of the contribution per student, the Applicant will pay the modified contribution amount to reflect the then current ratio and/or contribution for mid/high-rise residential (or equivalent).
- d. Public Safety Contribution. The Applicant shall contribute a total of \$10,000.00 to the Town of Herndon Police Department. The contribution shall be paid upon site plan approval.
- e.

9. ESCALATION. All monetary contributions required by these proffers, with the exception of the proffer relating to the public school contribution, shall escalate on a yearly basis from the base year of 2022 and change effective each January 1 thereafter, based on the Consumer Price Index as published by the Bureau of Labor Statistics, the U.S. Department of Labor for the Washington-Baltimore, MD-VA-DC-WV Consolidated Metropolitan Statistical Area (the "CPI"), as permitted by Virginia State Code Section 15.2-2303.3.3.
10. SUCCESSORS AND ASSIGNS. These proffers shall bind and inure to the benefit of the Applicant and his/her successors and assigns
11. COUNTERPARTS. These proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original document and all of which taken together shall constitute but one and the same instrument.

ELDEN STREET OWNER LLC

Title Owner of Tax Map 017-1 ((02)) 0007

By: _____

Name: _____

Title: _____

COMMONWEALTH OF _____

CITY/COUNTY OF _____, to-wit:

The foregoing instrument was acknowledged before me this 11th day of May, 2022
by Peter C. Kleeblatt as Authorized Party and on behalf of Elden Street Owner LLC

Notary Public

Notary Registration No: _____

My Commission Expires: _____

Linda Agyare Boateng
Notary Public, District of Columbia
My Commission Expires 06/30/2026



TOWN OF HERNDON, VIRGINIA

PLANNING COMMISSION

RESOLUTION

April 25, 2022

Resolution- to recommend **APPROVAL** of Zoning Map Amendment ZMA #21-01, 315 Elden Street, a zoning map amendment from CS, Commercial Services, to PD-UR, Planned Development Urban Residential, with proffered conditions to allow the conversion of an existing hotel to multi-family residential with a workforce housing component.

WHEREAS, the applicant, Elden Street Owner, LLC, has submitted a zoning map amendment, ZMA #21-01, on land identified as Fairfax County Tax Map Number 0171-02-0007, to convert an existing hotel development to multi-family use with a workforce housing component of at least 50 percent; and

WHEREAS, the request includes a proffer statement dated March 2, 2022 and a generalized development plan dated March 2, 2022; and

WHEREAS, the request conforms to the Town of Herndon 2030 Comprehensive Plan; and

WHEREAS, the applicant Is requesting modifications to the following sections of the zoning ordinance: Section 78-100.2(a), regarding minimum off-street parking, Section 78-51.1(e), regarding maximum 15 foot setback and minimum 18 foot building separation, Section 78-110.4(e)(3)(b), regarding minimum buffer strip, and Section 78-110.4, regarding planting standards; and

WHEREAS on March 28, 2022 and April 25, 2022, the Planning Commission held public hearings to consider ZMA #21-01; and

WHEREAS, the Planning Commission has determined that the above referenced proffer statement and generalized development plan conforms to Section 78-155.1(i)(2) of the zoning ordinance and Section 15.2-2284 of the Code of Virginia; and

WHEREAS, the Planning Commission has determined that the applicant has demonstrated that the requested modifications afford equal or greater assurances of meeting the applicable goals of the zoning ordinance.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the Town of Herndon, Virginia, that the Commission hereby recommends that the Town Council Approve ZMA #21-01 with the following proffers.

This is certified to be a true and accurate copy of the resolution associated with Zoning Map Amendment, ZMA#21-01 adopted at a legally convened meeting of the Town of Herndon Planning Commission on April 25, 2022


Clerk of Boards & Commissions

DRAFT PROFFERS
315 Elden Street Adaptive Reuse
March 02, 2022

Pursuant to Section 15.2-2303 of the Code of Virginia (1950, as amended) and Section 78-50.8 of the Town of Herndon Zoning Ordinance, as amended (the “Zoning Ordinance”), the undersigned, for themselves and their successors and/or assigns (referred to hereafter, both collectively and, where appropriate, individually, as the “Applicant”), hereby proffers that the development (the “Development”) of the parcels that are the subject of this application, which are shown on the Fairfax County 2021 Real Property Map as parcels 017-1 ((02)) 0007 (the “Property”) shall be in substantial conformance with the conditions set forth below (the “Proffers”) if, and only if, the rezoning of the Property to Planned Development – Urban Residential (“PD-UR”) and Development Plan # _____ (“Development Plan”) are approved by the Town Council.

1. DEVELOPMENT PLAN.

- a. The Property shall be developed in substantial conformance with the development plan entitled General Development Plan for 315 Elden Street Adaptive Reuse prepared by Bohler dated March 02, 2022 (the “Development Plan”) and these Proffers. It is understood by the Applicant that all other applicable regulations and policies governing land development within the Town of Herndon (the “Town”) shall apply to the Property and its development unless specifically modified by the language of this approval.
- b. Minor modifications of the Development Plan may be permitted without the need for an amendment to this approval when necessitated by final engineering or site design provided that the development is in substantial conformance with the Development Plan, these Proffers, and as approved by the Architectural Review Board (“ARB”), if applicable. Substantial conformity shall be determined as provided in the Zoning Ordinance.

2. PERMITTED USES.

- a. Unless modified by an amendment to the approved Development Plan, any use or combination of uses permitted in the PD-UR Zone may be established on the Property.

3. WORKFORCE HOUSING.

a. NUMBER OF UNITS.

- i. The Applicant shall provide no less than 50% of the total number of residential units on the Property as dedicated Workforce Dwelling Units (WDUs). The number of WDU units will be based upon the final number of total units that the Applicant constructs on the Property, not to exceed 170 units.
- ii. The WDU units will be distributed across the Property and no fewer than 20% of any unit type will be allocated as WDUs.
- iii. The WDU will have the same level of interior finishes and access to Property amenities as the market rate units.
- iv. Units designated as WDU units may change as residents move in and out of the building or have incomes that exceed AMI limits.

b. AFFORDABILITY.

- i. The maximum rent allowed for the WDUs will be affordable to households earning up to 80% of Area Median Income (“AMI”). Affordable means those households spend up to 30% of their gross annual income towards rent. AMI and maximum rent for such units is established annually by the non-profit Virginia Housing for the Washington Metropolitan Statistical Area and is based on number of persons in each household.
- ii. The maximum rent allowed for the WDUs will be limited to the annual Virginia Housing AMI limits. Parking fees and utilities will be assessed separately and are not limited by the maximum allowable rent. Parking and utility fees shall not be greater than the fees assessed to market rate units.

c. TERM.

- i. The WDUs in this program will be provided for 30 years beginning with

the occupancy of the first WDU unit.

d. WDU PROGRAM MANAGEMENT.

- i. Prior to occupancy of any market rate or WDU unit, the Applicant shall enter into a written agreement (WDU Agreement) with the Town of Herndon regarding management of this WDU Proffer commitment. The WDU Agreement shall address the following to the satisfaction of the Town:
 - 1. Applicant's process for verifying resident income and eligibility to lease WDU unit.
 - 2. Reporting requirements to Town upon lease up and, no less than annually thereafter, to verify compliance with these WDU Proffers. Reporting to include number of units leased, household size, household income and term of lease.
 - 3. Process for periodic Town inspection of units and rental records.
 - 4. Procedures and guidelines in the event that individuals or families already in the WDU program exceed the income limits. Individuals or families who initially qualify for a WDU unit and then have increase in income beyond the 80% AMI limit will have the option of staying within the same unit for one additional year at the rental rates under these Proffers. After which that unit will be reclassified as a market rate unit, and the Applicant will need to provide a replacement WDU unit within 30 days.

e. COVENANT.

- i. The Applicant shall record a covenant memorializing the Property's commitment for 50% of residential units to be set aside as Workforce Dwelling Units for a period of 30 years beginning with the occupancy of the first WDU unit.

4. ARCHITECTURE AND SITE DESIGN

- a. The final architectural treatment and exterior design of all buildings within the Development Plan shall create a sense of identity and place through the use of unifying elements such as color, materials, and landscaping as generally reflected in the exhibits contained in the Development Plan.
- b. Refuse and Recycling Enclosure. The Development Plan designates a general

location and general design details for a refuse and recycling enclosure as shown on Sheet C-3. Additionally, there is an existing dumpster enclosure in the northeast quadrant of the site that is to be reused to provide more proximity to refuse service for all residents. The refuse and recycling will be serviced by a private provider.

5. TRANSPORTATION.

- a. Transportation Mitigation. Transportation Impact Analysis and discussions with Town to determine what off-site transportation improvements may be required.
- b. Transportation Demand Management (TDM). The TDM Plan will include the below elements:
 - a. Contributions to resident Metro fare cards.
 - b. Contributions to County and WMATA bus service fare.
 - c. Carpool parking space.
 - d. Rideshare drop-off area in northeast corner of site
 - e. New resident information packets regarding all of the above and additional information about transit, carpool, vanpool, and bicycle options.
- c. Parking. Parking will be unbundled from the lease of the units to further the TDM objectives of the project.
- d. Bicycles. As shown in the GDP, the applicant is providing (3) bike parking pads onsite, near the street frontages to provide a total of (12) bike parking spaces. In addition, onsite there is secure, weather-protected bike parking for at least (48) bikes, and bike parking within an existing parking space for at least (12) bike parking spaces, as well as a space and equipment for bicycle repair and maintenance. This results in the project providing bike parking for at least (72) bikes, the majority of which would be secure and weather-protected.
- e. New Pedestrian Infrastructure. New ADA-accessible pedestrian connections are provided to the public sidewalks along Elden Street, Grove Street, and Herndon Parkway. In addition, crosswalks have been added onsite to improve pedestrian safety. See GDP sheet C-3.
- f. Dedication. Approximately 884 square feet of land abutting the existing Elden Street public right-of-way along the western portion of the property's frontage will be dedicated to the Town of Herndon at no cost to the Town. See GDP sheet C-3. The land will be used for future streetscape improvements. The value of this land, if valuated similarly to the adjacent land that VDOT recently purchased from the applicant, would provide the Town a dedication worth approximately \$29,172
- g. Bus Stop. The Applicant shall provide a \$10,000 monetary contribution to the Town for the improvement and/or relocation of the existing bus stop along Herndon

Parkway currently in front of the office property to the southeast at Tax Map #017-1 ((06)) G.

6. GREEN BUILDING.

In furtherance of the Green Building goals of the Town, the Applicant shall provide each residential building with energy efficient light fixtures and appliances. In addition, low-flow toilets and sinks shall be provided in each residential building.

7. UNIVERSAL DESIGN.

In furtherance of the Urban Design objectives of the Planned Development - Urban Residential District, the Applicant shall provide for Universal Design features within select residential units. This includes a commitment to provide three (3) ground floor Accessible units. In addition, all public open spaces will be Accessible. Finally, all ground floor units will apply the “adaptable” concept identified by the Fair Housing Act. Some examples of “adaptable” design concepts are walls that provide framing for future grab bars in bathrooms, lever handles on doors and faucets, and electrical wall switches requiring less dexterity by users.

8. CONTRIBUTIONS.

a. Recreation/Community Amenities/Civic Facilities. The applicant shall commit to maintaining the extensive existing onsite resident amenities. These high-quality amenities will be available to all residents and include outdoor patios with seating, barbecue grills, lighting, pavers, and trash receptacles, an outdoor pool, an outdoor sport court, and other outdoor gathering areas with seating.

b. Offsite Recreation Contribution. Prior to the issuance of the first certificate of occupancy, the Applicant must contribute a lump sum of \$350 per market-rate residential unit to the Town of Herndon for use at off-site recreational facilities within the Town.

c. School Contribution.

- i. Prior to the issuance of the first certificate of occupancy, the Applicant will contribute funds for (19) nineteen students. The contribution amount is \$232,978.00. This number was derived from the latest Fairfax County Public Schools Student Yield Ratio for mid/high-rise multifamily, multiplied by the total number of residential units constructed (170), multiplied by \$12,262.00 per student generated, per the Residential Development Criteria Implementation Motion adopted by the Fairfax County Board of Supervisors on January 7, 2003, as amended, to the Board of Supervisors for transfer to the Fairfax County School Board to be used for capital improvements and capacity enhancements to schools that serve

Commented [FD1]: From the 555 Herndon project approved several years ago:
 \$0.35 contribution per residential GFA
 475,000 residential GFA
 475 residential units

 $475,000 \times \$0.35 = \$166,250$ total contribution or \$350/unit

 315 ELDEN EQUIVALENT WOULD BE:

 $\$350$ contribution/MARKET RATE unit or \$29,750 total contribution
 $(\$350 \times 85 \text{ market rate units} = \$29,750)$

the Town of Herndon. The contributions will be based on the actual number of residential units constructed, as the total amount may vary. Following approval of this Development Plan and prior to the Applicant's payment of the amount(s) set forth in this Proffer, if Fairfax County should modify the ratio of students per units of the amount of the contribution per student, the Applicant will pay the modified contribution amount to reflect the then current ratio and/or contribution for mid/high-rise residential (or equivalent).

- d. Public Safety Contribution. The Applicant shall contribute a total of \$10,000.00 to the Town of Herndon Police Department. The contribution shall be paid upon site plan approval.
 - e.
9. ESCALATION. All monetary contributions required by these proffers, with the exception of the proffer relating to the public school contribution, shall escalate on a yearly basis from the base year of 2022 and change effective each January 1 thereafter, based on the Consumer Price Index as published by the Bureau of Labor Statistics, the U.S. Department of Labor for the Washington-Baltimore, MD-VA-DC-WV Consolidated Metropolitan Statistical Area (the "CPI"), as permitted by Virginia State Code Section 15.2-2303.3.3.
10. SUCCESSORS AND ASSIGNS. These proffers shall bind and inure to the benefit of the Applicant and his/her successors and assigns
11. COUNTERPARTS. These proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original document and all of which taken together shall constitute but one and the same instrument.

TITLE OWNER/APPLICANT SIGNATURE TO FOLLOW ON THE NEXT PAGE:

ELDEN STREET OWNER LLC
Title Owner of Tax Map 017-1 ((02)) 0007

By: _____

Name: _____

Title: _____

COMMONWEALTH OF _____
CITY/COUNTY OF _____, to-wit:

The foregoing instrument was acknowledged before me this ____ day of _____, 2022
by _____ as _____ of and on behalf of _____.

Notary Public
Notary Registration No: _____

My Commission Expires: _____

STATEMENT OF JUSTIFICATION
315 ELDEN ADAPTIVE REUSE
ZONING MAP AMENDMENT

~~January 05, 2022~~

March 02, 2022

I. Overview

This project seeks to adaptively convert an existing aging garden style hotel (Residence Inn Herndon-Reston) into a modern multifamily residential use with a combination of workforce and market-rate units.

- A. Application: Zoning Map Amendment
- B. Applicant: Elden Street Owner, LLC
- C. Address: 315 Elden Street, Herndon, VA 20170
- D. Parcels: 017-1 ((02)) 0007 (the “Site” or “Property”)
- E. Site Area: 282,465 sf (approximately 6.48 acres)
- F. Existing Use: Hotel
- G. Proposed Use: multifamily residential
- H. Proposed Zoning District: Planned Development - Urban Residential

II. Background

The Town of Herndon approved a change in the property’s Comprehensive Plan designation on November 07, 2020 (CPA #20-01) from “Business Corridor” to “Adaptive Area Residential.” In addition, the Town approved a Zoning Ordinance Text Amendment, ZOTA #21-02, to amend Chapter 78 (Zoning), Article V (Planned Development Districts), Section 78-51.1, entitled PD-UR (Planned Development-Urban Residential) to allow for an increase in permitted density when a zoning map amendment includes adaptive reuse of existing buildings for residential dwelling units.

This Zoning Map Amendment (ZMA) application is filed on behalf of Elden Street Owner, LLC (the “Applicant”) as title owner of the property located at 315 Elden Street (the “Property”) also identified as Tax Map parcel 017-1 ((02)) 0007. The existing hotel layout, amenities and interior finishes no longer meet top tier hotel brand standards. However, the physical layout of the various buildings on the property, the interior unit configuration and the good condition of the underlying building structures, presents a unique opportunity within the Town of Herndon to repurpose the current building as multifamily units. The Applicant is submitting this application to convert the property into a multifamily residential project while dedicating 50% of the units as workforce housing units.

III. Location and Existing Conditions

The approximately 6.48-acre Property is located south of Elden Street, west of Herndon Parkway, and north of Grove Street. The Property is surrounded by office developments to the west and south. To the north there is retail use across Elden Street and to the east across Herndon Parkway is a park including the Sugarland Run stream and multiuse trail.

The Property is developed with a 168 key (room) hotel that was built in 1990 and is 121,441 square feet. The 168 keys are spread across 11 buildings with surface parking. There are 187 parking spaces, including 4 accessible spaces. The buildings are 2 stories and include a brick and stucco exterior finish with gabled roofs. There is mature landscaping throughout the Property and a centrally located outdoor pool, sport court, and patio with areas for gathering, seating and grilling. Both the site and building design are very similar to many multifamily developments built in the 1990s.

The Property is currently zoned Commercial Services District (CS) with Floodplain Overlay District (FPO) in the far eastern edge. The Property is planned for “Adaptive Area Residential” according to the Town’s 2030 Comprehensive Plan Map. This Application seeks to rezone from CS to Planned Development - Urban Residential (PD-UR).

IV. Development Program

This project seeks to adaptively reuse an existing out-of-date hotel (Residence Inn Herndon-Reston) for updated multifamily residential use, specifically a combination of workforce and market-rate multifamily. However, there is no proposed increase in density or FAR. The project would retain existing structures, site design, and site amenities. The project would retain the existing building shells while renovating, updating, and modernizing the interiors and exteriors of the existing structures, and make minor modifications to existing site design and site amenities, if required.

Unit Types: The project would convert the existing hotel rooms on a roughly one-for-one basis, with a maximum of ~~174~~170 total multifamily units. The potential addition of up to ~~62~~ units (beyond the existing 168 keys) would be achieved within the current Gatehouse in the northeast. The potential unit types and mix includes +/-~~3028~~ studios, +/-98 1-bedroom units, and +/-~~4644~~ 2-bedroom units. The ~~174~~170 total units are the maximum number of proposed units. Final unit count will be determined during final site plan.

Workforce Housing Commitment: The proposal includes a commitment to provide at least 50% of units as Workforce Dwelling Units (WDUs). The maximum rent allowed for the WDUs will be affordable to households earning up to 80% of Area Median Income (“AMI”). Affordable means those households spend up to 30% of their gross annual income towards rent. As an example, with a program of ~~174~~170 total units, ~~8785~~ units would be affordable with the final mix to include at least 20% of each different unit type as WDUs. If the total units are reduced, the number of workforce units would be reduced, but the project would always maintain at least 50% units as WDUs.

The WDU units will be spread across the Property. With at least 20% of each unit represented, the Property will provide WDUs as studios, one bedrooms, and two bedrooms. In addition, the WDUs will have the same level of interior finishes and access to Property amenities as the market rate units. In addition, we will assess parking fees separately from rent, which will further the affordability of those WDU residents who choose to not purchase parking passes.

Parking: The existing onsite surface parking would be retained, with minor modifications such as restriping to meet ADA requirements. The project will request a parking reduction, with the exact reduction depending on the final unit count and mix of unit types.

Today there are 187 surface parking spaces with four (4) of these being accessible spaces. The adaptive reuse from hotel to multifamily residential will reduce the total available parking to 185184 spaces with eight (8) of these being accessible.

The 185184 total spaces would serve up to 174170 total multifamily units. This total unit count would consist of:

- +/-3028 studios (17.216.5%)
- +/-98 one bedrooms (56.357.6%)
- +/-4644 two bedrooms (26.425.9%)
- 174170 TOTAL (100%)

The Town's minimum parking rate (Z.O. 78-100.2) for each of the unit types is:

- Studio: 1 space/unit
- One bedroom: 1.5 spaces/unit
- Two bedroom: 2 spaces/unit

In order to meet these minimums, the project would have to provide:

- +/-3028 studios with 3028 spaces
- +/-98 one bedrooms with 147 spaces
- +/-4644 two bedrooms with 9288 spaces
- 174170 TOTAL units with 269263 spaces

The Applicant is requesting an overall parking reduction of approximately 31.230% for a total of 185184 spaces. This would result in the overall Project providing +/-1.061.08 spaces/unit or +/-0.840.86 spaces/bed.

The proposed parking supply of 185184 spaces is sufficient to meet the demand. We believe the requested parking supply will be sufficient for a number of reasons including:

- Actual parking demand at local residential sites demonstrates that parking demand is generally below the parking supply proposed by the Applicant.
- Based on the ITE Parking Manual's parking rates for "affordable" housing at the 85th percentile, the demand for parking spaces is 0.82 spaces/bed for "general urban/suburban settings". We believe this project falls under this category of sample real-world examples that these statistics were derived from.
- The project's overall proposed unit mix consists of about 74% studios and one bedrooms and no three bedrooms. This unit mix results in a smaller demand for parking spaces than a similarly located project with a unit mix that has more 2 or 3-bedroom units.
- Transit (2 bus lines) serves the site 7 days a week, and the site is just over a mile from 2 future Metro stations, offering alternative modes of transport beyond single occupancy vehicles.
- For bicyclists, the project is located less than ¼ mile from the Washington and Old Dominion (W&OD) multiuse trail and is connected to this trail by continuous and well-lit sidewalks as well as the paved Sugarland Run trail. The W&OD trail connects to several nearby employment centers such as Downtown Herndon and Reston Town Center.
- There are a number of retail, service, and employment options within a 10-minute walk along continuous public sidewalks.

- There will be provision of plentiful onsite bicycle parking, including secured weather-protected parking, as well as a bicycle repair and maintenance station which aids in bicycle ownership and convenience for bicycle commuters.
- Parking will be unbundled from the unit rental rates encouraging residents to minimize their car ownership.

Beyond the above reasons, the proposed parking supply will support several additional policy objectives of the Town including:

- Provision of at least 50% workforce dwelling units to support the Town's affordable housing goals and objectives.
- Retention of mature trees and landscaping in furtherance of the Town's tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

In addition, in order to further the affordability goals for households that do not own vehicles, or own fewer vehicles, parking will be unbundled from unit rental rates. Parking fees will be assessed separately and are not limited by the maximum allowable rent. Parking fees for workforce unit occupants will not be greater than the fees assessed to market rate unit occupants.

For more information on parking, please see the Parking Rate Modification Request from Wire Gill LLP, and Transportation and Parking Scoping Letter from Wells + Associates attached to the application package for more information.

Refuse and Recycling: The refuse and recycling bins will ~~continue to~~ be located in [a new enclosure in](#) the southwestern portion of the site and will be enclosed by a new 6-foot tall decorative wooden and brick fence to provide screening and maintain the site's aesthetics. Additionally, there is an existing dumpster enclosure in the northeast quadrant of the site that is to be reused to provide more proximity to refuse service for all residents. The bins are serviced completely within the site and do not affect any nearby rights of way. Sheet C-6 in the Development Plan demonstrates trash and recycling truck turning movements.

Open Space: The existing configuration of the open space will remain. The applicant proposes to maintain and update the existing on-site pool, sport court and outdoor grill areas.

Transportation Impacts: Wells + Associates is the traffic consultant for this project and on September 29, 2021 provided the Town of Herndon a draft Traffic Impact Study and Parking Reduction Scoping letter in order to establish the parameters for these two transportation impact items.

The proposal is to retain all three existing vehicular access points from Elden Street, Herndon Parkway, and Grove Street. The Herndon Parkway and Grove Street access points would continue to be right-in, right-out. The Elden Street access point is currently full access but will become right-in, right-out after completion of the Elden Street widening and improvement project set to begin construction in 2024.

The proposal is to study two nearby signalized intersections (Herndon Parkway and Elden Street, and Herndon Parkway and Grove Street) as well as the 3 access points described above.

The scoping letter indicates that the proposed adaptive reuse from hotel to multifamily residential use would result in an increase of about 24 trips for the overall site for the AM peak hour and an increase of about 35 trips for the overall site for the PM peak hour. These modest increases would be spread fairly evenly across the 3 vehicular access points.

Mitigation of these impacts will be discussed with Town staff during the ZMA public process. For more information, please see Wells + Associates Traffic Impact Study/Parking Reduction Scope letter dated September 29, 2021 included in the Zoning Map Amendment submittal package.

Summary: In summary, we believe this project will benefit the Town and help to meet several of its planning objectives. Both the Herndon 2030 Comprehensive Plan (Section VIII-4) and the Zoning Ordinance (Section 78-50) identify a number of development goals and objectives that we believe this project will achieve. These include:

- Provision of at least 50% workforce dwelling units to support the Town's affordable housing goals and objectives.
- Provision of a diverse mix of unit types for residents.
- Provision of appropriately placed multifamily residential housing in close proximity to retail, service, and employment uses and supportive transportation infrastructure.
- Maintenance and enhancement of neighborhood appearance with conversion to multifamily residential with updated facades – given that the alternative is a down-branding of an outdated hotel.
- Retention of mature trees and landscaping in furtherance of the Town's tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

We believe the site is well positioned for success as both a workforce housing and market-rate housing project due to the site's proximity to the future Metro station to the south and east, existing nearby public transit service, existing and planned pedestrian and bicycle facilities, and importantly, nearby employment in Downtown Herndon and along the Dulles Toll Road and Route 28 corridors, providing easy access to more than 100,000 existing jobs along the corridor.

V. Compliance with the review criteria for Zoning Map Amendments Zoning Ordinance Section 78-155.1.i.2

a. Consistent with the comprehensive plan.

- a. Response:** The proposal is consistent with the Comprehensive Plan. The Property is planned for "Adaptive Area Residential" according to the Town's 2030 Comprehensive Plan Map. With this designation, the Town encourages these areas to rezone and redevelop with a residential use in accordance with the Residential Redevelopment Criteria for Adaptive Area Residential. See below for a response to those criteria.

b. There are changed conditions that justify an amendment.

- a. Response:** The site and buildings have aged to a point that their branding type is no longer viable in the market. However, this aging itself out of the market presents an opportunity for a unique, and beneficial workforce housing and market rate multifamily residential project.

c. Addresses a demonstrated community need.

- a. **Response:** The Town's Comprehensive Plan has identified provision of affordable housing as an important Town objective, as well as provision of a variety of housing types to serve the diverse needs of the Town's residents. This project will meet both needs.
- d. **Compatible with existing and proposed uses surrounding the subject land, and is the appropriate zoning district for the land.**
 - a. **Response:** The proposed Planned Development – Urban Residential District zoning will be compatible and complimentary to the existing and planned uses surrounding the site. The nearby retail and services uses along Elden Street will complement the multifamily perfectly and the nearby offices may serve as employment for the proposed residents. Sufficient structure setbacks and landscape buffering will enhance compatibility while abundant multi-modal transportation options further make this proposal the right fit for the neighborhood.
- e. **Results in a logical and orderly development pattern, or deviate from logical and orderly development patterns. Accepted or emerging planning practices may be considered.**
 - a. **Response:** This site was the subject of a Comprehensive Plan Amendment by the Town (CPA #20-01) and a Zoning Text Amendment (#21-02) in recognition of the unique opportunity for logical and orderly development to support a number of the Town's policy objectives while also maintaining logical and quality development within this eastern entryway to the Town.
- f. **Avoids the creation of an isolated zoning district unrelated to adjacent and surrounding zoning districts.**
 - a. **Response:** The proposal creates a development that is related to and connected with the surrounding development. The uses themselves complement one another, as well as the transportation infrastructure. The proposal meets the purpose and intent of the PD-UR District which is to encourage harmonious and creative new residential development that allows for a mix of housing types and create attractive and appropriate transitions between commercial, commercial mixed-use, and existing adjacent residential districts. This proposal does just that.
- g. **Avoids adverse impact on the property values of surrounding lands.**
 - a. **Response:** The proposal will have a beneficial impact on the surrounding property values. Instead of allowing a down-branding of the current hotel use, which would reduce the quality of the existing building and site, we propose to adaptively reuse the hotel buildings and site for a new high-quality residential project.
- h. **Avoids adverse impact on the natural environment, including but not limited to water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment.**
 - a. **Response:** An adaptive reuse of a site with minimal change is the least environmentally impactful development path for this site. As we plan to maintain as much existing landscaping and mature trees onsite as possible, this further reduces the environmental impacts of this project on nearby streams, land, air, and forest.
- i. **Results in development that is adequately served by transportation facilities, including whether or not a substantial deterioration of the level of service on the town's transportation network would occur.**
 - a. **Response:** The site is well situated to have minimal impact upon the existing nearby transportation system. We plan to utilize the multiple existing vehicular access points, public transit lines, bike trails, and public sidewalks to minimize the transportation impacts of the project.

- j. **Results in development that is adequately served by other public facilities (potable water and sewage, schools, parks, police, and fire and emergency medical facilities).**
 - a. **Response:** There will be adequate public facilities for this proposal as is demonstrated by our submittal information.
- k. **If considered infill and redevelopment, is consistent with the redevelopment criteria and other applicable guidelines as stated in the Herndon 2030 Comprehensive Plan (adopted August 12, 2008), as amended.**
 - a. **Response:** The proposal is consistent with the residential redevelopment criteria as detailed below.

VI. Comprehensive Plan – Land Use Section III - Residential Redevelopment Criteria

The proposed adaptive reuse of a hotel for multifamily residential with at least 50% workforce dwelling units conforms with the Town's recently approved Comprehensive Plan designation of "Adaptive Area Residential." In addition, proposal conforms with the Town's recently approved Zoning Ordinance Text Amendment for the Planned Development-Urban Residential District to allow for an increase in permitted density when a zoning map amendment includes adaptive reuse of existing buildings for residential dwelling units.

VII. Modification Requests

As an existing, operating hotel, the structures and site layout are already generally fixed. Therefore, we are respectfully requesting several modifications as permitted under Zoning Ordinance 78-50.2-d and e. These are briefly summarized below, with each modification request included in the ZMA submittal package for Staff's review.

A. Minimum Parking Rate Reduction Z.O. 78-100.2

The Zoning Ordinance Section 78-100.2 requires ~~269~~²⁶³ parking spaces to serve the proposed ~~174~~¹⁷⁰ units. The request is to allow ~~185~~¹⁸⁴ parking spaces to serve the proposed ~~174~~¹⁷⁰ units, or an overall reduction of ~~31.2~~³⁰%. Please see the Parking Reduction Request attached to the ZMA application package for the Parking Reduction Request and its detailed information.

B. Maximum 15-foot Structure Setback from Public ROW Z.O 78-51.1e

Request for an increase in the maximum structure setback due to existing structures onsite. Existing structure setbacks range from between approximately 56 and approximately 85 feet from public right-of-way. Please see the Maximum 15-foot Structure Setback from ROW Increase Request attached to the ZMA application package for detailed information.

C. Minimum 18-foot Structure Separation Z.O 78-51.1e

Request for a reduction in the minimum structure separation to approximately 12 feet due to existing structures. Most existing structures met the minimum 18-foot structure separation, however several buildings maintain approximately 12 feet separation. Please see the Minimum 18-foot Structure Separation Decrease Request attached to the ZMA application package for detailed information.

D. Minimum 10-foot Perimeter Buffer Strip Z.O 78-110.4.d and 78-110.4.e.3.b

Request for a reduction in the minimum perimeter buffer landscaping requirement from both public right-of-way and adjacent properties to between 0-feet and 7.5 feet due to existing driveways and parking areas. Please see the Minimum 10-foot Perimeter Buffer Strip Decrease Request attached to the ZMA application package for detailed information.

E. Alternative to Planting Standards for Landscaping Z.O. 78-110.2

The Applicant requests alternatives to the required landscape standards due to an existing site design that includes perimeter buffers strips that are more narrow than today's Ordinance permits. Due to the narrowness of these existing landscape strips, we are unable to accommodate the required landscaping. We are proposing an incremental approach to revegetating the site over time, without the requirement to remove existing parking stalls. The approach will provide the optimal landscaping solution given this existing constraint and others. [A 6-foot wooden fence along the western property line will also be provided.](#)

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING

- LAND SURVEYING
- PROGRAM MANAGEMENT
- LANDSCAPE ARCHITECTURE
- SUSTAINABLE DESIGN
- PERMITTING SERVICES
- TRANSPORTATION SERVICES

[illegible]

Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the

NOT APPROVED FOR
CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

- | | |
|--------------|----------|
| PROJECT No.: | S2121 |
| DRAWN BY: | AN |
| CHECKED BY: | C |
| DATE: | 12/30/20 |
| CAD I.D.: | GDVL |

_____ FOR _____

LOCATION OF SITE

CIVIL ENGINEER

BOHLER
12825 WORLDGATE DR, SUITE 700
HERNDON, VA 20170
CONTACT: NICK GEORGAS, PLA
703-709-9500
CONTACT: GREG ELLWOOD, PE
703-709-9500

12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com



SHEET NUMBER: _____

REVISION 2 - 02/25/2022

RECORD DESCRIPTION

- THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF HERNDON, COUNTY OF FAIRFAX, STATE OF VIRGINIA, AND IS DESCRIBED AS FOLLOWS:
- ALL THAT CERTAIN PIECE OR PARCEL OF LAND, TOGETHER WITH THE IMPROVEMENTS THEREON AND APPURTENANCES THEREUNTO BELONGING, LYING, SITUATE AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:
- BEGINNING AT A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF GROVE STREET, SAID POINT BEING THE SOUTHWESTERLY CORNER OF AGRO SEVILLE USA, INC., THENCE WITH THE NORTHERLY RIGHT-OF-WAY LINE OF GROVE STREET S89°10'35"W, 127.89 FEET TO A POINT MARKING THE MOST EASTERLY CORNER OF OUTLOT "A", NEW DOMINATION TECHNOLOGY PARK; THENCE WITH THE NORTHEASTERLY LINE OF SAID OUTLOT "A" N65°10'35"W, 267.28 FEET TO A POINT MARKING THE EASTERN END OF SAID OUTLOT "A"; THENCE WITH THE WESTERLY LINE OF SAID OUTLOT "A" W04°10'35"E, 127.89 FEET TO THE MOST EASTERLY LINES OF SAID OUTLOT "B", 381 ELLEN STREET LLC AND ELDEN STREET LLC N14°07'49"E, 744.43 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF ELDEN STREET (ROUTE 606); THENCE WITH THE SOUTHERLY RIGHT-OF-WAY LINES OF ELDEN STREET THE FOLLOWING COURSES: S16°04'21"W, 10.00 FEET; S08°18'26"W, 297.25 FEET, AN ARC DISTANCE OF 298.16 FEET; WHOSE CHORD IS 573'05"06", 150.26 FEET, AN ARC DISTANCE OF 150.26 FEET; 573'54"08", 101.06 FEET AND S 19°50'56", 31.31 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF HERNDON PARKWAY; THENCE WITH THE WESTERLY RIGHT-OF-WAY LINE OF HERNDON PARKWAY THE FOLLOWING COURSE: S16°04'21"W, 10.00 FEET; WITH A CURVE TO THE LEFT, WHOSE RADIUS IS 1,189.00 FEET AND WHOSE CHORD IS S08°18'26"W, 297.25 FEET, AN ARC DISTANCE OF 298.16 FEET; N00°27'29"S, 30.00 FEET; S01°13'28"E, 69.67 FEET AND N87°00'34"E, 30.00 FEET TO A POINT MARKING THE MOST EASTERLY CORNER OF SAID AGRO SEVILLE USA, INC.; THENCE WITH THE WESTERLY LINE OF AGRO SEVILLE USA, INC. S14°17'35"W, 348.74 FEET TO A POINT OF BEGINNING, CONTAINING 6.3942 ACRES OF LAND.
- BEING THE SAME PROPERTY CONVEYED TO MSCI 2007-TOP27 ELLEN STREET, LLC, A DELAWARE LIMITED LIABILITY COMPANY BY DEED FROM DAVID L. LINGFELT, SUBSTITUTE TRUSTEE, DATED MAY 30, 2019, RECORDED JUNE 8, 2019 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF FAIRFAX COUNTY, VIRGINIA, BOOK 6000, PAGE 1000.

LAND AREA

278,537 SQUARE FEET±
6.394 ACRES±

PARKING SPACES

REGULAR= 183 HANDICAP= 4
TOTAL= 187

ZONING DATA

ZONING ITEM		REQUIRED	PARKING REQUIREMENTS
ZONING DISTRICT		CS COMMERCIAL SERVICES	HOTEL: 1 SPACE PER GUEST ROOM MINIMUM.
PERMITTED USE		HOTEL	
MINIMUM LOT AREA (SQ.FT.)		NO MINIMUM	
MAX BUILDING COVERAGE		NO MINIMUM	
MAX BUILDING HEIGHT		45' MAXIMUM	
BUILDING SETBACKS			CONTACT: LISA GILLERAN PHONE: (703) 435-6800
FRONT		50' MINIMUM 100' MAXIMUM	
SIDE		7.5' MINIMUM	
REAR		7.5' MINIMUM	
			REPORT DATE: 6/11/2019
			GRS# 19-40508.2

FLOOD NOTE

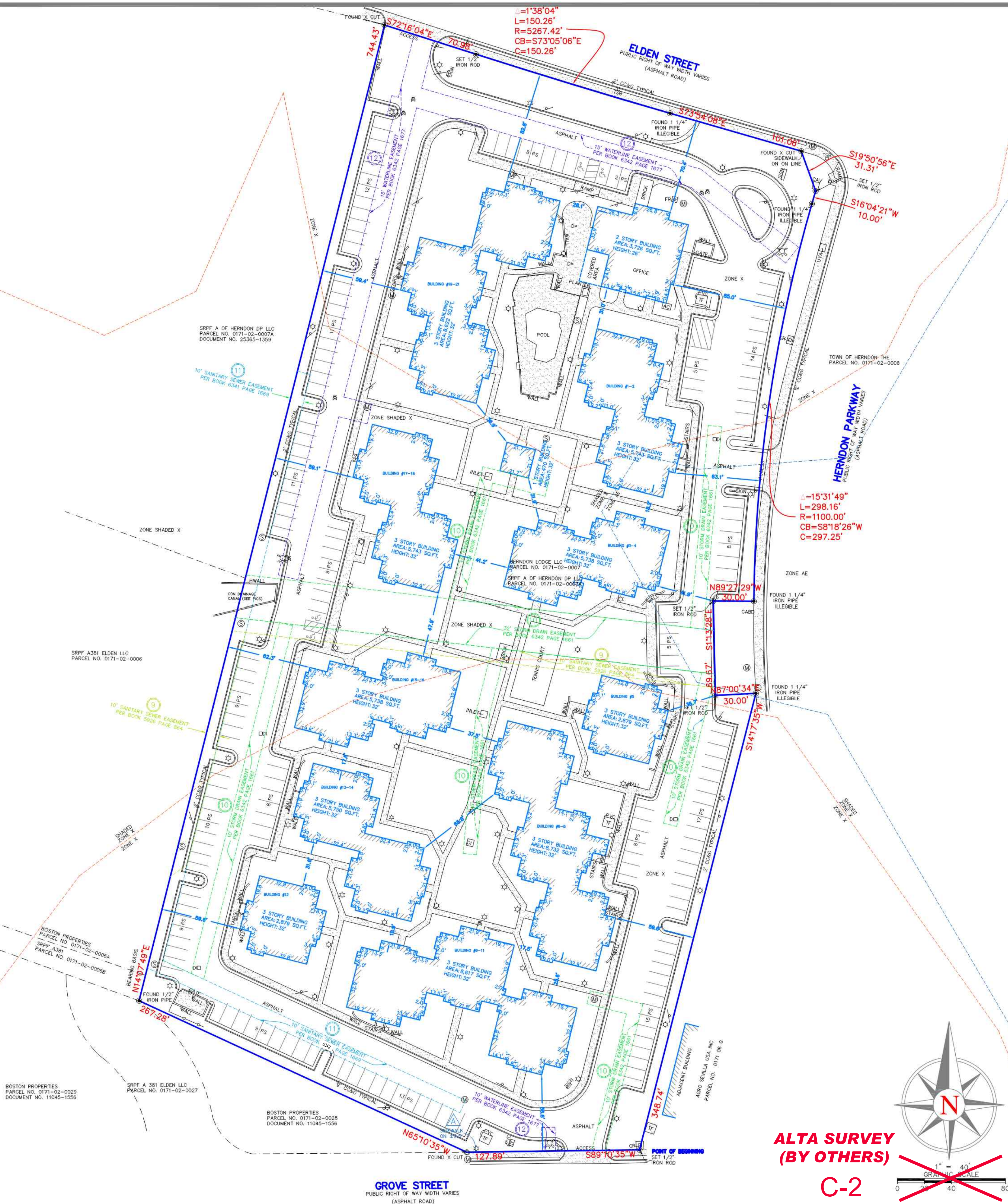
FLOOD NOTE: BASED ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AVAILABLE ONLINE AT WWW.MSC.FEMA.GOV, AND BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X, SHADED X AND AE ON FLOOD INSURANCE RATE MAP NUMBER 51059C0130E, WHICH BEARS AN EFFECTIVE DATE OF 09/17/2010 AND IS & IS NOT IN A SPECIAL FLOOD HAZARD AREA. BY REVIEWING FLOOD MAPS PROVIDED BY THE NATIONAL FLOOD INSURANCE PROGRAM, WE HAVE DETERMINED THAT THIS PROPERTY DOES PARTICIPATE IN THE PROGRAM AND IS NOT FLOODING. THE PROPERTY IS LOCATED IN ZONE X AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THE ACCURACY OF THE MAPS AND/OR TO APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

SIGNIFICANT OBSERVATIONS

A SIDEWALK ENCROACHES ON SUBJECT PROPERTY BY $\pm 0.5'$ AT MOST

LEGEND

PS	PARKING SPACE(S)	SQ.FT.	SQUARE FEET
DI	DRAINAGE INLET		CONCRETE SURFACE
TF	TRANSFORMER		NO PARKING AREA
AC	AIR CONDITIONER		HANDICAP PARKING SPACE
CO	CLEAN OUT		WATER VALVE
CR	CABLE RISER		SANITARY MANHOLE
FP	FLAG POLE		MANHOLE
CAB	CABLE BOX		LIGHT POLE
CVA	CABLE VAULT		FIRE HYDRANT
UVA	UTILITY VAULT		SIGN
TSR	TRAFFIC SIGNAL POLE		METAL FENCE
TSB	TRAFFIC SIGNAL CONTROL BOX		WOOD FENCE
CC&G	CONCRETE CURB AND GUTTER		PLASTIC FENCE



TITLE COMMITMENT INFORMATION

THE PROPERTY HEREON DESCRIBED IS THE SAME AS THE PERTINENT PROPERTY AS DESCRIBED IN FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT FILE NO.: 30762VA-510-510, WITH AN EFFECTIVE DATE OF JULY 15, 2019. AMENDMENT DATE NOVEMBER 4, 2019.

GENERAL SURVEY NOTES

- ALL STATEMENTS WITHIN THE CERTIFICATION, AND OTHER REFERENCES LOCATED ELSEWHERE HEREON, RELATED TO: UTILITIES, IMPROVEMENTS, STRUCTURES, BUILDINGS, PARTY WALLS, PARKING LOTS, DRIVEWAYS, ETC., ARE BASED ON A VISUAL SURVEY OF THE PROPERTY FROM ABOVE GROUND VISIBLE EVIDENCE, UNLESS ANOTHER SOURCE OF INFORMATION IS SPECIFICALLY REFERENCED HEREON.
- THIS DRAWING MEETS OR EXCEEDS THE SURVEYING STANDARDS AND STANDARDS OF CARE SET FORTH IN THE PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR.
- ALL FIELD MEASUREMENTS MAKE RECORD DIMENSIONS WITHIN THE PRECISION REQUIREMENTS OF ALTA/SPEI SPECIFICATIONS
- THERE IS NO RECORD OR OBSERVED EVIDENCE OF A CEMETERY OR BURIAL GROUNDS OR LOCATION OF ISOLATED GRAVESTONES.
- THE BEARINGS ARE BASED ON THE WEST LINE OF THIS PARCEL BENE N140°74'9"E, PER RECORD
- THE TITLE LINES AND LINES OF ACTUAL POSSESSION ARE THE SAME.
- THE PARCELS CONTAINED IN THE RECORD LEGAL DESCRIPTION ARE CONTIGUOUS WITHOUT ANY GAP, ROPES, OR OVERLAYS.
- THE SUBJECT PROPERTY HAS DIRECT PHYSICAL ACCESS TO ELDEN STREET AND GROVE STREET.
- AT THE TIME OF THE FIELD WORK, THERE IS NO OBSERVABLE EVIDENCE OF THE SITE USE AS SOLID WASTE DUMP, SLUMP OR SANITARY LANDFILL.
- NO ADJACENT FIELDWORK OWNERSHIP OF FENCING SHOWN HEREON IS UNKNOWN TO THIS SURVEYOR.
- IN REGARDS TO TABLE "A" ITEM 7(X), THE BUILDING AREA SHOWN HEREON IS FOR THE BUILDING OF THE BUILDING ONLY.
- IN REGARDS TO TABLE "A" ITEM 10(A), AT THE TIME OF THIS SURVEY, THERE WAS NO PARTY WALLS; DESIGNATED BY THE CLIENT TO REFERENCE HEREON.
- IN REGARDS TO TABLE "A" ITEM 10(B), THE INTERSECTION OF STREET IS THAT OF HERNDON PARKWAY.
- IN REGARDS TO TABLE "A" ITEM 16, AT THE TIME OF THIS SURVEY, THERE IS NO OBSERVABLE EVIDENCE OF EARTH MOVING WORK; BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
- IN REGARDS TO TABLE "A" ITEM 17, AT THE TIME OF THIS SURVEY, NO APPARENT CHANGES TO THE LOT OR PLAT DIMENSIONS HAVE BEEN OBSERVED.
- IN REGARDS TO TABLE "B" ITEM 18, AT THE TIME OF THIS SURVEY, NO VISIBLE FIELD DELINEATION MARKERS FOR WETLANDS WERE OBSERVED TO REFERENCES ON THIS SURVEY.
- PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT REQUIRED TO BE MAINTAINED TO COVER THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST.
- THERE ARE NO PLOTTABLE OFFSITE EASEMENTS OR SERVITUDES BENEFITING SUBJECT PROPERTY.
- TITLE COMMITMENT NUMBER _____ TITLE COMMITMENT _____

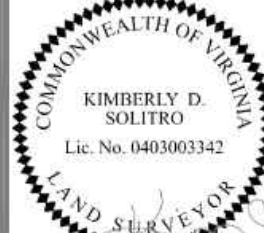
ALTA/NSPS LAND TITLE SURVEY

RESIDENCE INN
315 ELDEN STREET
FAIRFAX COUNTY HERNDON, VA 20170

SURVEYOR'S CERTIFICATE

TO: MSCI 2007-TOP27 ELDEN STREET, LLC, A DELAWARE LIMITED LIABILITY COMPANY; LNR PARTNERS, LLC, A FLORIDA LIMITED LIABILITY COMPANY; NOVARE NATIONAL SETTLEMENT SERVICE; FIDELITY NATIONAL TITLE INSURANCE COMPANY; GRS GROUP;

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(a), 6 (b), 7(a), 7(b)(1), 7(c), 8, 9, 13, 14, 16, 17, 18, 19 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 06/15/2019.
DATE OF PLAT OR MAP: 10/31/2019



REGISTERED SURVEYOR: KIMBERLY D. SOLITRO
PROFESSIONAL LAND SURVEYOR NO.: 040300334
STATE OF VIRGINIA

SURVEYED BY:

REPUBLIC
NATIONAL

DATED 2019 - USE OF THIS DOCUMENT'S FORMAT IS PROHIBITED AND CONTINGENT UPON THE WRITTEN CONSENT & PERMISSION BY THE GRS GROUP, LLC.

JOB NO. 190605

REVISION HISTORY

DATE _____

1

1

1

3

1

1

1

BY:

COORDINATING EDITOR

SURVEY

10

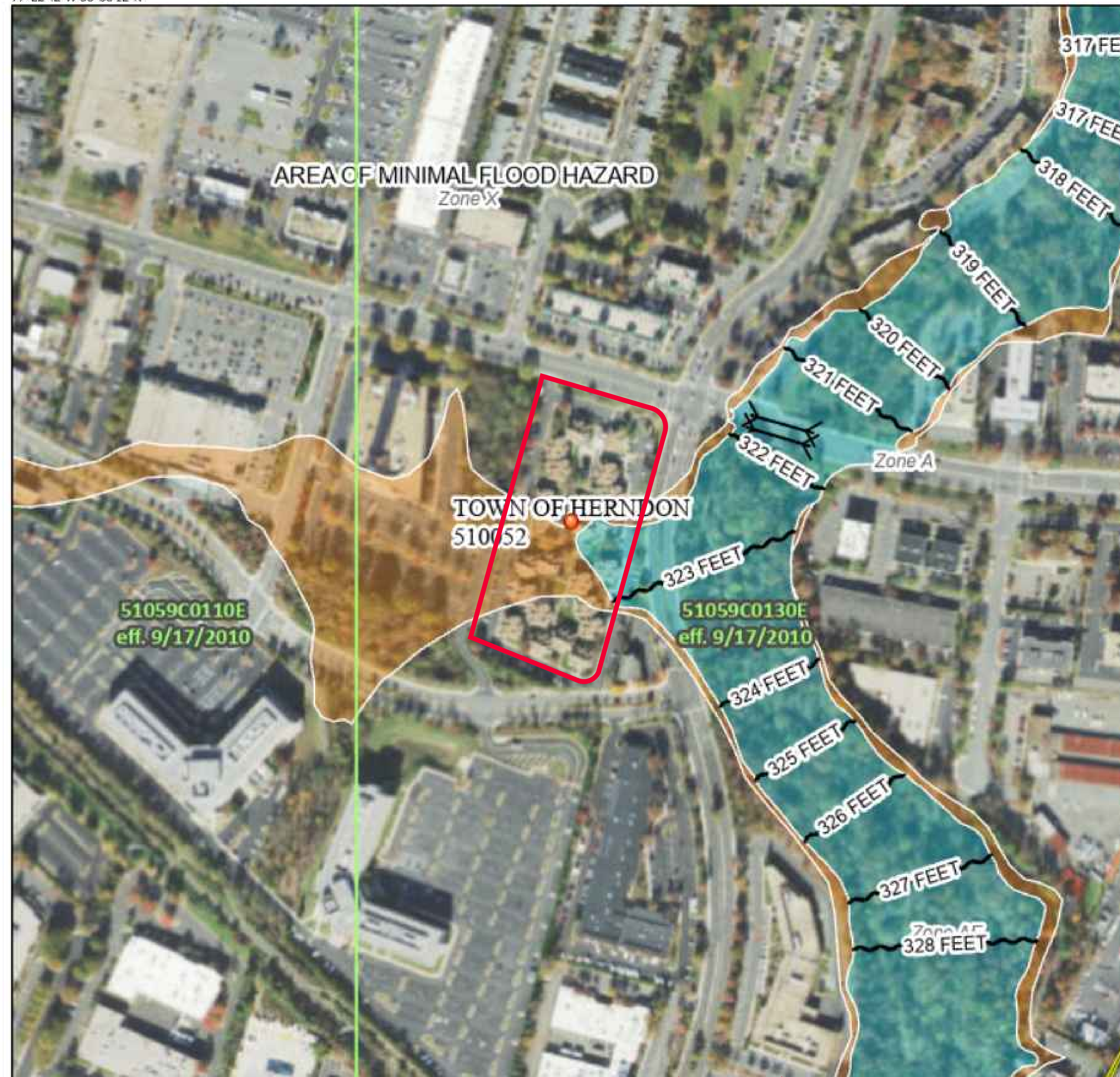
National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/20/2021 at 10:50 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS				
REV	DATE	COMMENT	BY	CHKD BY
1	01/05/2022	REV. PER 1ST SUB COMMENTS	AW	GE
2	02/25/2022	REV. PER COMMENTS	MR	GE

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

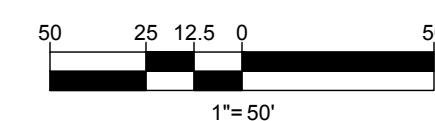
PROJECT No.:	S212133
DRAWN BY:	AND
CHECKED BY:	GE
DATE:	12/30/2021
CAD ID:	GDVL - 2

PROJECT:
GENERAL DEVELOPMENT PLAN
FOR
315 ELDEN STREET RESIDENTIAL
LOCATION OF SITE
315 ELDEN STREET
TOWN OF HERNDON
FAIRFAX COUNTY, VA
DRANESVILLE DISTRICT

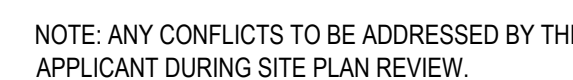
BOHLER
12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com

COMMONWEALTH OF VIRGINIA
MICHAEL J. BIRKLAND
Lic. No. 031693
03/02/2022
PROFESSIONAL ENGINEER

SHEET TITLE:
FLOODPLAIN MAP
SHEET NUMBER:
C-4
REVISION 2 - 02/25/2022



REVISION 2 - 02/25/2022



50 25 12.5 0 5

1" = 50'



**Know what's below.
Call before you dig.**

ALWAYS CALL 811

It's fast. It's free. It's the law.

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT:

BOHLER //

12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com



REVISION 2 - 02/25/2022



The Hoop Rack is a proven design that provides high security and easy bike parking. The Hoop Rack uses thick pipe construction and the full radius of the bend makes the Hoop an attractive and functional bike rack. This bike rack can also be put on rails for mobility and is popular in bike corals.

THIS PLAN TO BE UTILIZED FOR
INFORMATIONAL
PURPOSES ONLY



[illegible]

NOT APPROVED FOR
CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT:

100%

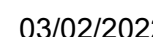
D

315 ELDEN
STREET
RESIDENTIAL

LOCATION OF SITE

315 ELDEN STREET
TOWN OF HERNDON
FAIRFAX COUNTY, VA
DRANESVILLE DISTRICT

12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com



SHEET TITLE:

SHEET NUMBER:

L-1

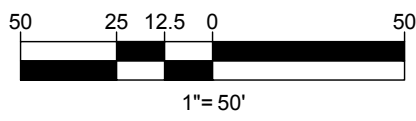
REVISION 2 - 02/25/2022



NOTES:

1. THE TWO TREES THAT WERE DEAD BASED ON A SITE VISIT WILL BE REPLACED IN KIND IN THE SAME LOCATION AS SHOWN ON THIS SURVEY

315 Elden Street										
Tree Condition Analysis Performed by Nicholas Georgas, ISA Certified Arborist MA-5061A on 09/24/2021										
#	COMMON NAME	BOTANICAL NAME	CONDITION	CIRCUMFERENCE	DIAMETER	DIAMETER	CRITICAL ROOT	REMOVE	NATIVE	COMMENTS
			RATING		(DBH)	(DBH)	ZONE (CRZ)			
			%	INCHES	INCHES	FEET	FEET			
2182	Red Oak	Quercus Rubra	75%	66.88"	21.30"	1.78'	22'		Y	Dieback, Low Branch, Dieback in Crown
2183	Red Maple	Acer Rubrum	70%	57.78"	18.40"	1.53'	19'		Y	Codominant Leader, Lichen, x3, Cut Back
2184	Pin Oak	Quercus Palustris	55%	58.72"	18.70"	1.56'	19'		Y	Major Dieback, Codominant Leader, Broken Branch
2185	Red Oak	Quercus Rubra	65%	72.53"	23.53"	1.93'	24'		Y	Minor Lichen, Codominant Leader
2186	Japanese Pagoda Tree	Styphnolobium japonicum	60%	43.33"	13.80"	1.15'	14'		Y	Cut Back, Major Dieback
2187	Red Oak	Quercus Rubra	90%	64.68"	20.60"	1.72'	21'		Y	
2188	Honey Locust	Gleditsia Tricacanthos	75%	32.03"	10.20"	0.85'	11'		Y	Dieback, Minor Vine
2189	White Spruce	Picea Glauca	0%	30.77"	9.80"	0.82'	10'		Y	Dead
2190	White Spruce	Picea Glauca	75%	32.66"	10.40"	0.87'	11'		Y	Dieback, Limbed Up
2191	Red Maple	Acer Rubrum	75%	41.45"	13.20"	1.10'	14'		Y	Codominant Leader, Low Branch
2192	Willow Oak	Quercus Phellos	80%	36.11"	11.50"	0.96'	12'		Y	
2193	Eastern Red Cedar	Juniperus Virginia	65%	28.26"	9.00"	0.75'	9'		Y	Dieback
2194	Eastern Red Cedar	Juniperus Virginia	85%	28.26"	9.00"	0.75'	9'		Y	Dieback
2195	Eastern Red Cedar	Juniperus Virginia	85%	32.34"	10.30"	0.86'	10'		Y	Minor Vine
2196	Eastern Red Cedar	Juniperus Virginia	85%	27.95"	8.90"	0.74'	9'		Y	Minor Dieback
2197	Eastern Red Cedar	Juniperus Virginia	75%	32.66"	10.40"	0.87'	11'		Y	Dieback
2198	Norway Spruce	Picea Abies	70%	29.52"	9.40"	0.78'	10'		Y	Major Dieback
2199										
2200						Not Used	Not Used			
2201	Eastern Red Cedar	Juniperus Virginia	70%	29.83"	9.50"	0.79'	10'		Y	Dieback
2202	Norway Spruce	Picea Abies	75%	36.74"	11.70"	0.98'	12'		Y	Dieback
2203	Eastern Red Cedar	Juniperus Virginia	85%	30.14"	9.60"	0.80'	10'		Y	
2204	American Sycamore	Platanus Occidentalis	90%	31.40"	10.00"	0.83'	10'		Y	
2205	American Sycamore	Platanus Occidentalis	90%	36.42"	11.60"	0.97'	12'		Y	
2206	American Sycamore	Platanus Occidentalis	90%	37.68"	12.00"	1.00'	12'		Y	
2207	Sugar Maple	Acer Saccharum	80%	59.66"	18.00"	1.58'	19'		Y	Cut Back, Low Branch, Codominant Leader
2208	White Pine	Pinus Strobus	60%	40.82"	12.60"	1.08'	12'		Y	Major Dieback
2209	White Pine	Pinus Strobus	60%	35.80"	11.40"	0.95'	12'		Y	Major Dieback, Codominant Leader
2210	Red Maple	Acer Rubrum	65%	32.66"	10.40"	0.87'	11'		Y	Crooked, Codominant Leader
2211	White Pine	Pinus Strobus	60%	43.02"	13.70"	1.14'	14'		Y	Major Dieback
2212	Unknown	Unknown	0%	51.81"	16.50"	1.38'	17'		Y	Dead
2213	Red Maple	Acer Rubrum	80%	48.36"	15.40"	1.28'	14'		Y	Codominant Leader, Yellow Leaf
2214	Red Maple	Acer Rubrum	75%	45.84"	14.60"	1.22'	15'		Y	Codominant Leader
2215	Sugar Maple	Acer Saccharum	75%	43.33"	13.80"	1.15'	14'		Y	Lichen, Codominant Leader
2216	Red Maple	Acer Rubrum	70%	54.95"	17.50"	1.46'	18'		Y	Codominant Leader, Dieback
2217	Cherry Tree 'Yoshino'	Prunus x Yedoensis	70%	54.01"	17.20"	1.43'	18'		Y	x3, Codominant Leader
2218	Red Maple	Acer Rubrum	80%	54.01"	17.20"	1.43'	18'		Y	Weak Branch, Codominant Leader
2219	White Pine	Pinus Strobus	70%	47.41"	15.10"	1.26'	16'		Y	Crooked Cut Back
2220	Red Maple	Acer Rubrum	70%	57.15"	18.20"	1.52'	19'		Y	Trunk Scar, Major Dieback
2221	White Pine	Pinus Strobus	40%	52.12"	16.60"	1.38'	17'		Y	Major Dieback
2222	White Pine	Pinus Strobus	75%	43.39"	13.13"	1.13'	13'		Y	Dieback
2223	Red Maple	Acer Rubrum	85%	34.23"	10.90"	0.91'	11'		Y	Codominant Leader
2224	White Spruce	Picea Glauca	60%	51.81"	16.50"	1.38'	17'		Y	Low Branch
2225	Red Maple	Acer Rubrum	85%	36.74"	11.70"	0.98'	12'		Y	Low Branch
2226	Willow Oak	Quercus Phellos	90%	31.71"	10.10"	0.84'	11'		Y	
2227	Blue Spruce	Picea pungens	60%	38.31"	12.31"	1.02'	12'		Y	Major Dieback
2228	Red Maple	Acer Rubrum	85%	38.62"	12.30"	1.03'	13'		Y	Codominant Leader
2229	River Birch	Betula Nigra	80%	53.19"	16.94"	1.41'	17'		Y	Minor Dieback, Crooked x3
2230	River Birch	Betula Nigra	85%	47.25"	15.05"	1.25'	16"		Y	x3, Lean
2231	Red Oak	Quercus Rubra	90%	53.38"	17.00"	1.42'	17'		Y	Trunk Scar, Minor Dieback
2232	River Birch	Betula Nigra	80%	39.30"	12.52"	1.04'	12'		Y	
2233	American Holly	Ilex Opaca	85%	45.37"	14.45"	1.20'	15'		Y	x2, Limbed Up
2234	Southern Magnolia	Magnolia Grandiflora	80%	28.26"	9.00"	0.75'	9'		Y	Dieback
2235	American Holly	Ilex Opaca	85%	44.63"	14.21"	1.18'	15'		Y	x2
2236	White Pine	Pinus Strobus	90%	58.72"	18.70"	1.56'	19'		Y	
2237	Scarlet Oak	Quercus Cocinea	60%	70.65"	22.50"	1.88'	23'		Y	Codominant Leader, Major Dieback
2238	American Holly	Ilex Opaca	90%	35.17"	11.20"	0.93'	12'		Y	
2239	Red Maple	Acer Rubrum	80%	55.89"	17.80"	1.48'	18'		Y	Codominant Leader, Dieback
2240	Scarlet Oak	Quercus Cocinea	85%	74.10"	23.68"	1.97'	24'		Y	Codominant Leader
2241	Crape Myrtle	Lagerstroemia	90%	31.65"	10.08"	0.84'	11'		Y	
2242	Crape Myrtle	Lagerstroemia	90%	25.93"	8.26"	0.69'	9'		Y	x3
2243	American Beach	Fagus Grandifolia	90%	75.67"	24.10"	2.01'	25'		Y	Codominant Leader
2244	Red Bud	Cercis Canadensis	90%	23.55"	7.50"	0.63'	8'		Y	
2245	Chinese Holly	Ilex Cornuta	85%	48.77"	15.53"	1.29'	16"		Y	x3
2246	Red Maple	Acer Rubrum	85%	59.66"	18.00"	1.58'	19'		Y	Cut Back, Weak Branch
2247	Crape Myrtle	Lagerstroemia	90%	34.48"	10.98"	0.92'	11'		Y	x5
2248	Red Bud	Cercis Canadensis	90%	23.86"	7.60"	0.63'	8'		Y	
2249	Red Bud	Cercis Canadensis	90%	25.12"	8.00"	0.67'	8'		Y	
2250	Hedge Maple	Acer Campestre	80%	50.24"	16.00"	1.33'	15'		Y	
2251	Red Oak	Quercus Rubra	90%	83.52"	26.60"	2.22'	27'		Y	Codominant Leader, Girdled Root, Dieback
2252	Cherry Tree 'Yoshino'	Prunus x Yedoensis	80%	32.66"	10.40"	0.87'	11'		Y	Minor Dieback, Codominant Leader
2253	Red Bud	Cercis Canadensis	90%	18.53"	5.90"	0.49'	6'		Y	Trunk Scar
2254	Cherry Tree 'Yoshino'	Prunus x Yedoensis	80%	43.33"	13.80"	1.15'	14'		Y	x2, Codominant Leader, Low Branch
2255	Crape Myrtle	Lagerstroemia	90%	30.23"	9.60"	0.80'	10'		Y	x5
2256	Pin Oak	Quercus Palustris	65%	61.54"	19.60"	1.63'	20'		Y	Major Dieback
2257	Sweetbay Magnolia	Magnolia Virginiana	85%	33.23"	10.58"	0.88'	11'		Y	x4, Low Branch
2258	Japanese Maple	Acer Palmatum	70%	31.40"	10.00"	0.83'	10'		Y	Dieback, Low Branch
2259	Japanese Maple	Acer Palmatum	75%	35.17"	11.20"	0.93'	12'		Y	Low Branch
2260	Red Maple	Acer Rubrum	80%	54.01"	17.20"	1.43'	18'		Y	Codominant Leader
2261	Blue Spruce	Picea pungens	85%	36.11"	11.50"	0.96'	12'		Y	Minor Dieback
2262	Pin Oak	Quercus Palustris	65%	60.70"	25.70"	2.14'	26'		Y	Major Dieback
2263	Crape Myrtle	Lagerstroemia	90%	27.97"	8.91"	0.74'	9'		Y	x5
2264	Blue Spruce	Picea pungens	90%	31.40"	10.00"	0.83'	10'		Y	Dieback Interior
2265	Crape Myrtle	Lagerstroemia	90%	25.14"	8.32"	0.69'	9'		Y	x5
2266	Red Oak	Quercus Rubra	80%	53.07"	16.90"	1.41'	17'		Y	Minor Dieback
2267	Hedge Maple	Acer Campestre	70%	49.72"	15.83"	1.32'	16"		Y	x3, Dieback
2268	Scarlet Oak	Quercus Cocinea	85%	69.08"	22.00"	1.83'	22'		Y	
2269	Red Maple	Acer Rubrum	70%	41.45"	13.20"	1.10'	14'		Y	Codominant Leader, Trunk Scar
2270	Crape Myrtle	Lagerstroemia	90%	21.67"	6.90"	0.58'	7'		Y	x5
2271	Pin Oak	Quercus Palustris	65%	74.10"	23.60"	1.97'	24'		Y	Codominant Leader, Dieback, Lichen
2272	Japanese Pagoda Tree	Styphnolobium japonicum	60%	36.42"	11.60"	0.97'	12'		Y	Major Lean, Dieback, Low Branch
2273	Red Oak	Quercus Rubra	80%	58.72"	18.70"	1.56'	19'		Y	Dieback, Limbed Up
2274	Red Oak	Quercus Rubra	80%	58.72"	18.70"	1.56'	19'		Y	



CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

[illegible]

It's fast. It's free. It's the law.

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT:

LOCATION OF SITE

12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com



SHEET NUMBER: _____

REVISION 2 - 02/25/2022

October 01, 2021

VIA HAND DELIVERY AND EMAIL

David Stromberg, Zoning Administrator
Town of Herndon
777 Lynn Street
Herndon, VA 20170

RE: 315 Elden Adaptive Reuse, Modification Request for Minimum Parking Rate Reduction

Dear Mr. Stromberg:

As you know my client, Elden Street Owner, LLC (the "Applicant"), is the owner of the property located at 315 Elden Street (the "Property"). On behalf of the Applicant, I am submitting this request for a modification of Zoning Ordinance Section 78-100.2(a) for the minimum required parking rates for efficiency/studio units, one bedroom units, and two bedroom units. This modification request is submitted as part of a Zoning Map Amendment application. A modification is permitted by Zoning Ordinance Section 78-50.2(e). The Applicant requests a reduction of the parking rate by 31.2% as detailed below.

Analysis:

Today there are 187 surface parking spaces with four (4) of these being accessible spaces. The adaptive reuse from hotel to multifamily residential will reduce the total available parking to 185 spaces with eight (8) of these being accessible. The 185 total spaces would serve up to 174 total multifamily units. This total unit count would consist of approximately:

- +/-30 studios (17.2%)
- +/-98 one bedrooms (56.3%)
- +/-46 two bedrooms (26.4%)
- +/-174 TOTAL (100%)

The Town's minimum parking rate (Z.O. 78-100.2) for each of the unit types is:

- Studio: 1 space/unit
- One bedroom: 1.5 spaces/unit
- Two bedroom: 2 spaces/unit

In order to meet these minimums, the project would have to provide:

- +/-30 studios with 30 spaces
- +/-98 one bedrooms with 147 spaces
- +/-46 two bedrooms with 92 spaces
- 174 TOTAL units with 269 spaces

The Applicant is requesting an overall parking reduction of approximately 31.2% ($185 / 269 = 0.6877$, $1.0 - 0.6877 = 31.2$) for a total of 185 spaces rather than the required 269 spaces. This would result in the overall Project providing +/-1.06 spaces/unit or +/-0.84 spaces/bed.

This modification request meets the standards set forth in Zoning Ordinance Section 78-50.2(e) by demonstrating that the proposed parking supply is sufficient for the anticipated demand, and by demonstrating that the proposed parking supply meets the intent and purpose of the off-street parking and loading standards of Article X, Parking, Loading and Circulation. Below we detail how the request meets the standards.

In 2021, the Applicant completed a parking assessment that evaluated five (5) multi-family properties that covered 1,224 units within the Town of Herndon. In comparison to the subject hotel conversion site that was constructed in 1990, the evaluated sites were predominately constructed in the 1970s with the exception of two (2) sites that were constructed in 1962 and 1995. Based on an analysis of each site's parking supply and bedroom unit mix, four (4) of the five (5) sites provide an effective parking supply ranging between 0.56 to 0.67 spaces per bed. The remaining site provided 0.86 spaces per bed. All of the sites reported a current occupancy that was greater than 95 percent and according to the individual property managers, the sites currently experience a parking utilization between 75 and 90 percent of their respective parking supplies. This survey and analysis of actual parking demand at local residential sites is comparable to the Applicant's proposal and demonstrates that parking demand is generally below the parking supply proposed by the Applicant.

The proposed parking supply of 185 spaces is sufficient to meet the demand. We believe the requested parking supply will be sufficient for a number of reasons including:

- Actual parking demand at local residential sites demonstrates that parking demand is generally below the parking supply proposed by the Applicant.
- Based on the ITE Parking Manual's parking rates for "affordable" housing at the 85th percentile, the demand for parking spaces is 0.82 spaces/bed for "general urban/ suburban settings". We believe this project falls under this category of sample real-world examples that these statistics were derived from.
- The project's overall proposed unit mix consists of about 74% studios and one bedrooms and no three bedrooms. This unit mix results in a smaller demand for parking spaces than a similarly located project with a unit mix that has more 2 or 3-bedroom units.
- Transit (2 bus lines) serves the site 7 days a week, and the site is just over a mile from 2 future Metro stations, offering alternative modes of transport beyond single occupancy vehicles.
- For bicyclists, the project is located less than ¼ mile from the Washington and Old Dominion (W&OD) multiuse trail and is connected to this trail by continuous and well-lit sidewalks as well as the paved Sugarland Run trail. The W&OD trail connects to several nearby employment centers such as Downtown Herndon and Reston Town Center.
- There are a number of retail, service, and employment options within a 10 minute walk along continuous public sidewalks.
- There will be onsite bicycle parking provided which aids in bicycle ownership and convenience for bicycle commuters.
- Parking will be unbundled from the unit rental rates encouraging residents to minimize their car ownership.

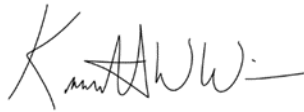
Beyond the above reasons, the proposed parking supply will support several additional policy objectives of the Town including:

- Provision of at least 50% workforce dwelling units to support the Town's affordable housing goals and objectives.
- Retention of mature trees and landscaping in furtherance of the Town's tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

In addition, in order to further the affordability goals for households that do not own vehicles, or own fewer vehicles, parking will be unbundled from unit rental rates. Parking fees will be assessed separately and are not limited by the maximum allowable rent. Parking fees for workforce unit occupants will not be greater than the fees assessed to market rate unit occupants. This unbundling of parking may attract tenants who own fewer or no cars and wish to take advantage of this cost saving approach.

For additional information regarding this modification request, please see the Traffic Impact Study/Parking Reduction Scope letter by Wells and Associates dated September 29, 2021. For each of the above reasons, the Applicant respectfully submits this modification request.

Sincerely,

A handwritten signature in black ink, appearing to read "K. W. Wire", with a stylized flourish at the end.

Kenneth W. Wire

October 01, 2021

VIA HAND DELIVERY AND EMAIL

David Stromberg, Zoning Administrator
Town of Herndon
777 Lynn Street
Herndon, VA 20170

RE: 315 Elden Adaptive Reuse, Modification Request for Minimum 18-Foot Structure Separation

Dear Mr. Stromberg:

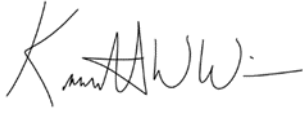
As you know my client, Elden Street Owner, LLC (the “Applicant”), is the owner of the property located at 315 Elden Street (the “Property”). On behalf of the Applicant, I am submitting this request for a modification of Zoning Ordinance Section 78-51.1(e) for the minimum structure separation within a development site within the PD-UR dimensional standards table. This modification request is submitted as part of a Zoning Map Amendment application. A modification is permitted by Zoning Ordinance Section 78-50.2(d).

The Applicant requests a decrease in the permitted 18-foot structure separation within a development site to allow for an approximately 12-foot structure separation. This modification is requested because the structures are existing, and we are seeking to adaptively reuse the structures in order to achieve multiple policy objectives identified within the Town’s Comprehensive Plan and Zoning Ordinance including:

- Provision of at least 50% workforce dwelling units to support the Town’s affordable housing goals and objectives.
- Provision of a diverse mix of unit types for residents.
- Provision of appropriately placed multifamily residential housing in close proximity to retail, service, and employment uses and supportive transportation infrastructure.
- Maintenance and enhancement of neighborhood appearance with conversion to multifamily residential with updated facades – given that the alternative is a down-branding of a soon-to-be outdated hotel.
- Retention of mature trees and landscaping in furtherance of the Town’s tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

We believe this modification request meets the standards set forth in Zoning Ordinance Section 78-50.2(d) as described above. For additional information regarding this modification request, please see the General Development Plans submitted with this Zoning Map Amendment submittal, including sheets C-2 and C-3 by Bohler. For each of the above reasons, the Applicant respectfully submits this modification request.

Sincerely,

A handwritten signature in black ink, appearing to read "K. W. Wire", with a horizontal line extending from the end.

Kenneth W. Wire

October 01, 2021

VIA HAND DELIVERY AND EMAIL

David Stromberg, Zoning Administrator
Town of Herndon
777 Lynn Street
Herndon, VA 20170

RE: 315 Elden Adaptive Reuse, Modification Request for Minimum 10-Foot Perimeter Buffer Strip

Dear Mr. Stromberg:

As you know my client, Elden Street Owner, LLC (the “Applicant”), is the owner of the property located at 315 Elden Street (the “Property”). On behalf of the Applicant, I am submitting this request for a modification of Zoning Ordinance Section 78-110.4.d and 78-110.4.e.3.b for the minimum perimeter buffer strip requirement from both public Right-of-Way and adjoining property. This modification request is submitted as part of a Zoning Map Amendment application. A modification is permitted by Zoning Ordinance Section 78-50.2(d).

The Applicant requests a decrease in the required 10-foot perimeter buffer strip requirement (from both public right-of-way and from adjacent property) to allow for a 0 to 7.5-foot buffer strip from the subject property’s drive aisles and parking areas. Zoning Ordinance Section 78-110.4.d (Perimeter buffer strip requirements adjacent to public rights-of-ways) requires a 10-foot buffer strip. The Applicant requests a 7.5-foot buffer strip along Elden Street, and 0 to 7.5-foot buffer strip along Herndon Parkway, and a 7.5-foot buffer strip along Grove Street. In addition, Zoning Ordinance Section 78-110.4.e.3.b (Perimeter buffer strip requirements not adjacent to public right-of-way) requires a 10-foot buffer strip between the subject property’s drive aisles and parking areas and the abutting land zoned CS, CO, and O&LI along the west and south. The Applicant requests at 7.5-foot buffer strip along these properties and a 0-foot buffer strip in the far northwest of the site abutting the CS-zoned land.

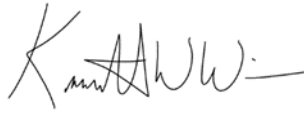
This modification is requested because the structure is existing, and we are seeking to adaptively reuse the structures in order to achieve multiple policy objectives identified within the Town’s Comprehensive Plan and Zoning Ordinance including:

- Provision of at least 50% workforce dwelling units to support the Town’s affordable housing goals and objectives.
- Provision of a diverse mix of unit types for residents.
- Provision of appropriately placed multifamily residential housing in close proximity to retail, service, and employment uses and supportive transportation infrastructure.

- Maintenance and enhancement of neighborhood appearance with conversion to multifamily residential with updated facades – given that the alternative is a down-branding of a soon-to-be outdated hotel.
- Retention of mature trees and landscaping in furtherance of the Town's tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

We believe this modification request meets the standards set forth in Zoning Ordinance Section 78-50.2(d) as described above. For additional information regarding this modification request, please see the General Development Plans submitted with this Zoning Map Amendment submittal, including sheets C-2 and C-3 by Bohler. For each of the above reasons, the Applicant respectfully submits this modification request.

Sincerely,

A handwritten signature in black ink, appearing to read "K. W. Wire", with a stylized flourish at the end.

Kenneth W. Wire



Attachment #6

Kenneth W. Wire
kwire@wiregill.com
703-677-3129

January 05, 2022

VIA HAND DELIVERY AND EMAIL

David Stromberg, Zoning Administrator
Town of Herndon
777 Lynn Street
Herndon, VA 20170

RE: 315 Elden Adaptive Reuse, Modification Request for Landscape Standards

Dear Mr. Stromberg:

As you know my client, Elden Street Owner, LLC (the "Applicant"), is the owner of the property located at 315 Elden Street (the "Property"). On behalf of the Applicant, I am submitting this request for a modification of Zoning Ordinance Section 78-110.2. - Planting standards for landscaping, primarily for the existing perimeter buffer strips along public Right-of-Way and adjoining property. The modification request is a companion to the already submitted Modification Request for a decrease in the required 10-foot perimeter buffer strip requirement to allow a 7.5-foot wide buffer. Today's modification request is submitted as part of a Zoning Map Amendment application resubmittal responding to Staff comments dated December 06, 2021. A modification is permitted by Zoning Ordinance Section 78-50.2(d).

The Applicant requests alternatives to the required landscape standards due to an existing site design that includes perimeter buffers strips that are more narrow than today's Ordinance permits. Due to the narrowness of these existing landscape strips, we are unable to accommodate the required landscaping. We are proposing an incremental approach to revegetating the site over time, without the requirement to remove existing parking stalls. For example, required trees typically need 8-feet of space to be health, grow, and thrive, and in many areas we have less than 8 feet of landscape area. We will plant these areas with shrubs. In other areas where we have room, particularly along Herndon Parkway, we plant trees. We will also replace dead trees. Overall, we are providing 24 new trees and 200 new shrubs as shown on the GDP's Landscape Plan.

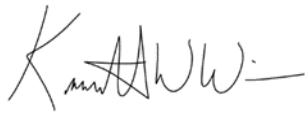
This modification is requested because the structure is existing, and we are seeking to adaptively reuse the structures in order to achieve multiple policy objectives identified within the Town's Comprehensive Plan and Zoning Ordinance including:

- Provision of at least 50% workforce dwelling units to support the Town's affordable housing goals and objectives.
- Provision of a diverse mix of unit types for residents.
- Provision of appropriately placed multifamily residential housing in close proximity to retail, service, and employment uses and supportive transportation infrastructure.

- Maintenance and enhancement of neighborhood appearance with conversion to multifamily residential with updated facades – given that the alternative is a down-branding of a soon-to-be outdated hotel.
- Retention of mature trees and landscaping in furtherance of the Town's tree retention goals and objectives which reduce impacts on the environment and maintain aesthetic appeal.

We believe this modification request meets the standards set forth in Zoning Ordinance Section 78-50.2(d) as described above. For additional information regarding this modification request, please see the General Development Plans submitted with this Zoning Map Amendment submittal, including sheets L-1 and L-2 by Bohler. For each of the above reasons, the Applicant respectfully submits this modification request.

Sincerely,

A handwritten signature in black ink, appearing to read "K. W. Wire", with a stylized flourish at the end.

Kenneth W. Wire

MEMORANDUM

To: Chair Michael Romeo, Planning Commission

From: Chair Leslie Blaker-Glass, Architectural Review Board

Date: February 10, 2022

Subject: ARB Review of ZMA#21-01, 315 Elden Street, Herndon Virginia

This memo serves as a report of the ARB's preliminary review of the architectural changes included in Zoning Map Amendment case #21-01, which proposes a hotel to multi-family housing conversion project at 315 Elden Street. This review occurred at the ARB work session on February 2nd, 2022.

As this was a pre-application discussion item, the review was preliminary and not comprehensive. The applicant specified three changes to the property which were discussed by the board:

- 1) Exterior dark gray paint applied to the brown, currently unpainted brick facades
- 2) The addition of a secured bicycle shelter to be placed within the current parking lot area
- 3) Construction of a refuse and recycling enclosure

Prior to the review, the applicant provided renderings of the paint changes, catalog sheets showing the bicycle shelter, and a plan showing the location and size of the refuse enclosure.

Board Discussion:

After presentations by Town staff and the project representatives, the board discussed the project and provided feedback. While acknowledging the housing needs this project helps to address in the town, the Board expressed an overall support for the architectural updates proposed. Given the limited scope of the changes proposed, the discussion was short however the following items were discussed as considerations for the applicant when preparing the formal review by the ARB following ZMA and site plan approval.

- Color Appropriateness. The proposed dark grey colors serve as a strong contrast to the warmer color palette of the existing buildings and should be explored further for suitability against the colors and materials to remain especially the existing roof shingles. The Formal ARB review would need to include more renderings showing the change in color's impact across the site.

- Bicycle Shelter. The board expressed encouragement about the design of the bicycle enclosure as presented.
- Refuse Enclosure. The board questioned whether more than one additional enclosure would be sufficient and expressed the need to include all proposed enclosures in the formal ARB review. The enclosures should be designed to coordinate and complement the architecture and materials of the principal building on the site.
- Accessibility. The Board inquired whether any changes to the exterior of the buildings would be necessary to improve accessibility to units and explained that such changes should also be included in the formal ARB review.

Overall, the Board is positive about this project and looks forward to reviewing a formal application in the coming months. The board found no major issues and is pleased with the type of improvements being proposed.

**DERO**
A PLAYCORE Company

Cycle Station

The Dero Cycle Station provides high-capacity, covered bike parking for bicycle commuters. With a high roof and open platform, the Dero Cycle Station allows bike corrals, vertical, or two-tiered bike racks configured to meet your specific needs. Optional side and back panels are available for additional protection.

Cycle Station



FINISH OPTIONS

Galvanized



Powder Coat

 White	 Black	 Deep Red RAL 3003	 Yellow RAL 1023
 CNH Bright Yellow	 Orange RAL 2004	 Beige RAL 1001	 Hunter Green RAL 6005
 Light Green RAL 6018	 Green RAL 6016	 Sky Blue RAL 5015	 Blue RAL 5005
 Dark Purple	 Flat Black	 Wine Red RAL 3005	 Iron Gray RAL 7011
 Light Gray RAL 7042	 Silver RAL 9007	 Sepia Brown RAL 8014	 Bronze

SOLAR POWERED LIGHTING AVAILABLE

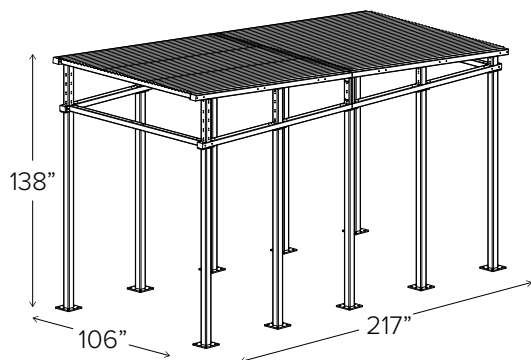




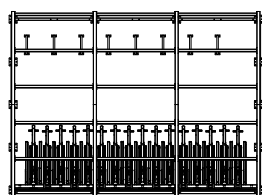
DERO
A PLAYCORE Company

Cycle Station

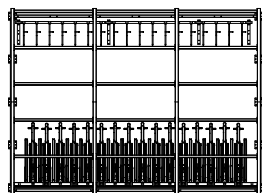
Attachment #8 Submittal Sheet



Sample capacities for a 3 unit shelter



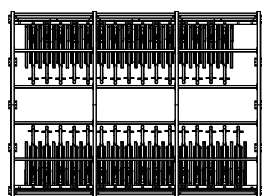
Hoop Racks and
Dero Deckers
48 Bikes



Ultra Space Saver Squared
and Dero Deckers
51 Bikes



Ultra Space Savers
48 Bikes



Dero Deckers
64 Bikes

Dero Shelters can be used in a modular fashion (shared uprights) however, when used in this manner, please consult a Dero Bike Rack sales associate for layout, as the rack spacing and bike capacity can change!

CAPACITY

See diagrams below and to the left

MATERIALS

Uprights: 4" x 3/16" square tube.
Feet: 1/2" plate
Roof Truss: 4" x 3" x 3/16" square tube
Roof Purlins: 3" x 1/8" square tube
Roof Panels: 24g Type S deck galvanized steel
Panels: 1/4" clear polycarbonate with 1.77" square aluminum framing
Panels: 2" x 3/16" steel wire mesh with 2" steel framing

FINISHES

- ☐ **Galvanized**
An after fabrication hot dipped galvanized finish is our standard option.
- ☐ **Powder Coat**
Our powder coat finish assures a high level of adhesion and durability by following these steps:
1. Sandblast
2. Epoxy primer electrostatically applied
3. Final thick TGIC polyester powder coat

MOUNT OPTIONS

Surface Only
It is the responsibility of the installer to ensure that all base materials into which the shelter will be installed can support the rack and will not be damaged by any required installation procedures. See structural drawings for details.

SETBACKS

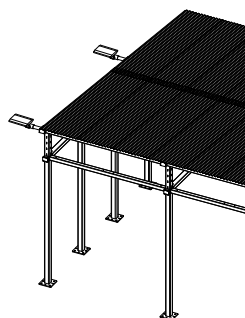
Consult local building codes for acceptable setbacks and placement.

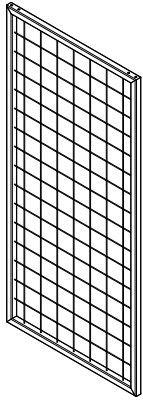
LOAD DATA

Dead Load: self weight of structure
Live Load: 40 psf
Wind Load: 90 mph exposure B
Seismic Load: moderate to high
Footings: see page 4
Anchors: 5/8" x 41/2" embed Simpson Strong-Bolt 2 wedge anchors

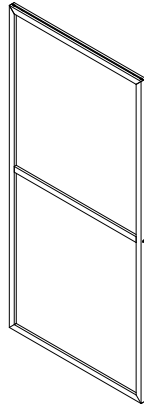
LIGHTING

- ☐ Solar powered lights are available for an additional charge

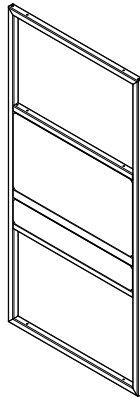




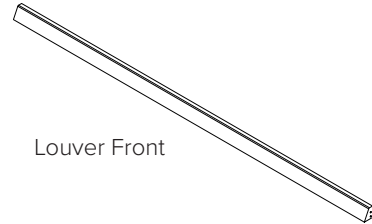
Wire Mesh Panel



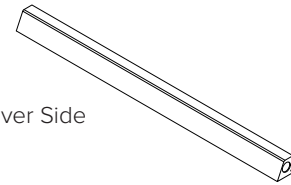
Polycarbonate Panel



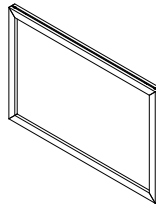
Door



Louver Front



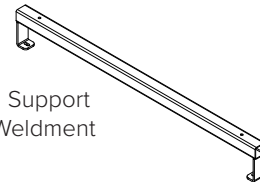
Louver Side



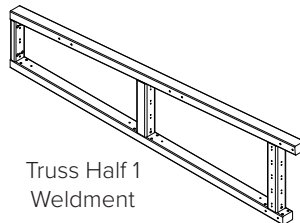
Door Polycarbonate Panel



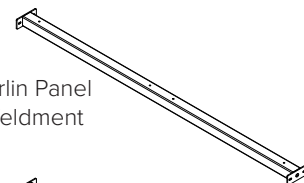
Panel Support
Front Weldment



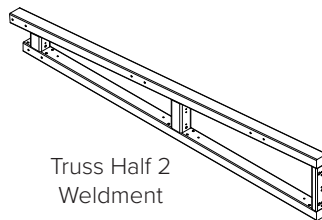
Panel Support
Side Weldment



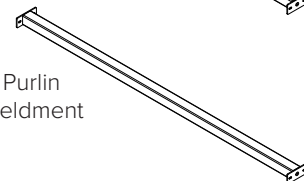
Truss Half 1
Weldment



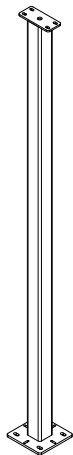
Purlin Panel
Weldment



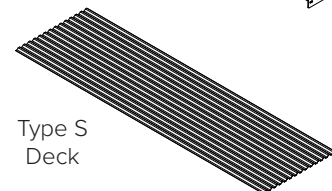
Truss Half 2
Weldment



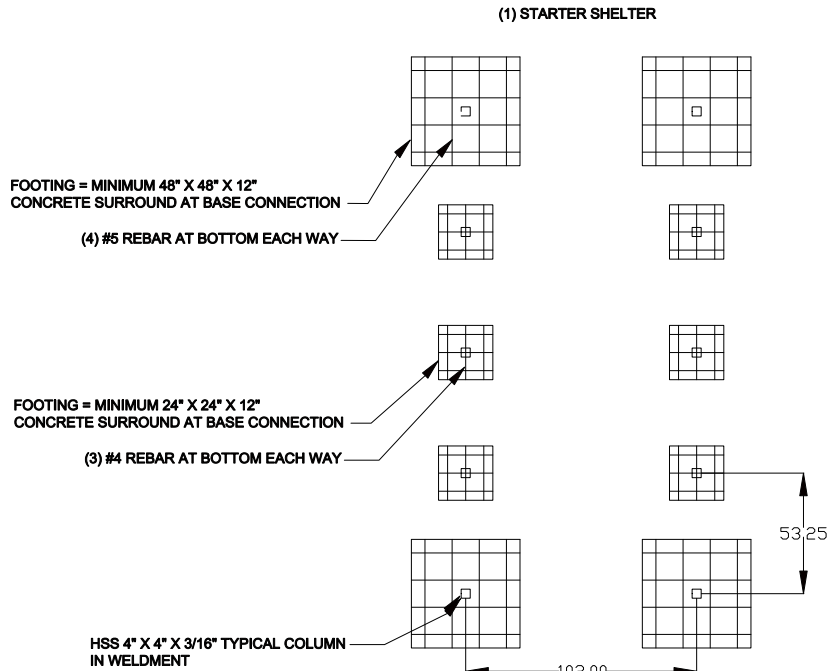
Purlin
Weldment



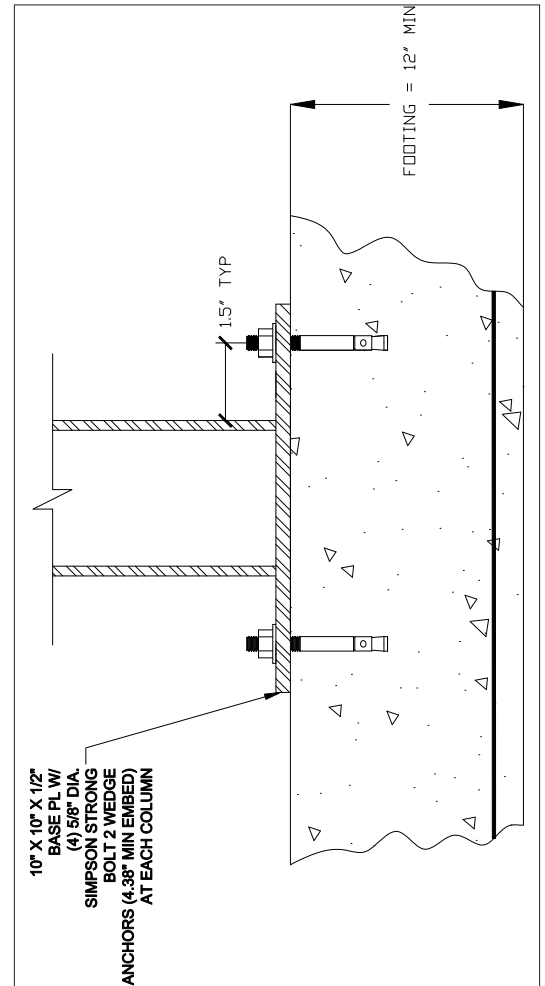
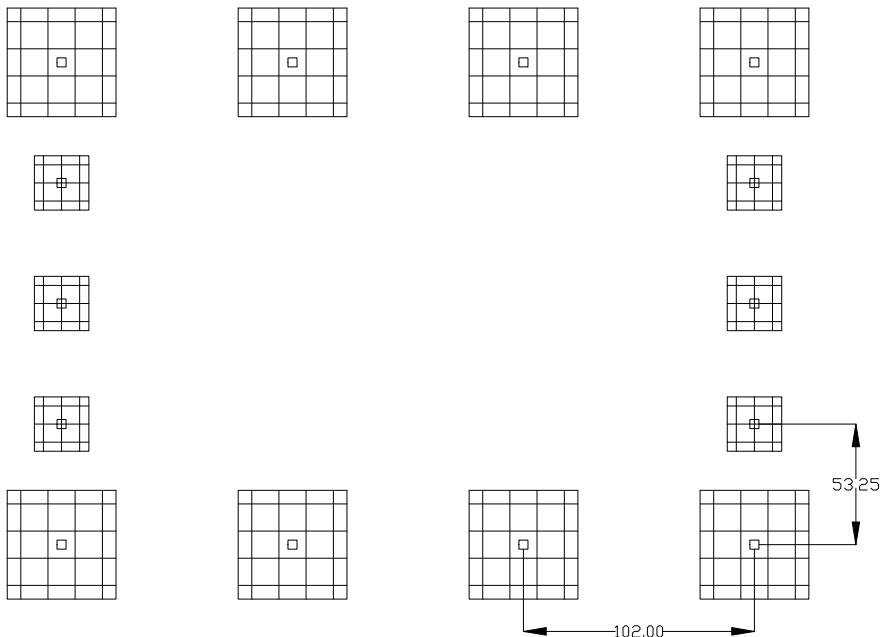
Upright
Weldment



Type S
Deck



EXAMPLE
(1) STARTER SHELTER
(2) ADD-ON SHELTERS





DERO
A PLAYCORE Company

Cycle Station

Attachment #8 Installation

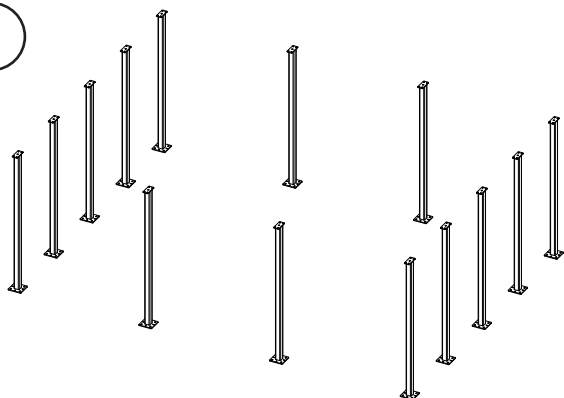


TOOLS NEEDED

Hammer Drill
Masonry Bits: 3/8", 5/8"
Large Hammer
Level
Chalk Line
Tape Measure
Tall Ladder
Material Lift or Forklift

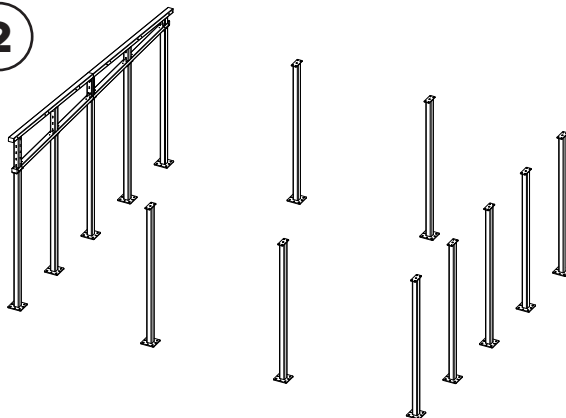
Wrenches: 7/16", 1/2", 9/16", 3/4", 15/16", 1 1/8", 13mm
Socket Wrench with Sockets: 7/16", 1/2", 9/16", 3/4",
15/16", 1 1/8"
Spud Wrench
Drill
Drill Bit 7/32"
Drive Socket 5/16"
Driver Torx T30

1



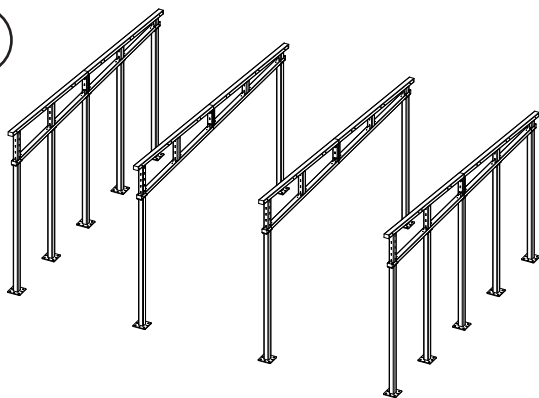
Place uprights on concrete pad over footings (see footing drawing). Confirm all uprights are properly spaced and square. Using the upright foot as a template, drill (4) 5/8" diameter x 6" holes at each upright. Install wedge anchors with nuts finger-tight. See shelter assembly drawing for specific upright placement locations.

2



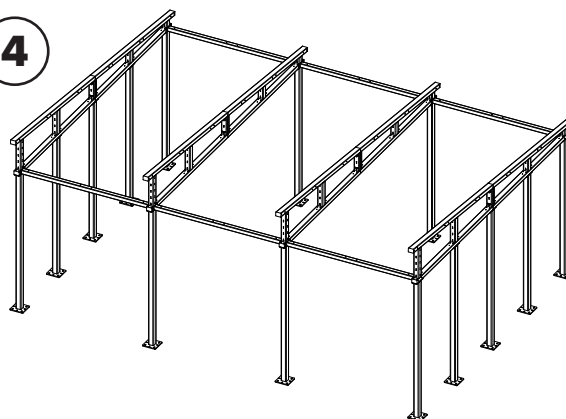
Lift both truss halves into place and fasten to uprights with (4) 1/2" x 4.5" bolts, (4) lock washers, and (4) nuts at each upright. Leave finger-tight. Fasten truss halves to each other with (4) 3/4" x 5.5" bolts, (8) lock washers, and (4) nuts each. Fully tighten.

3



Install the remaining trusses. For middle trusses, fasten truss halves to each other before lifting.

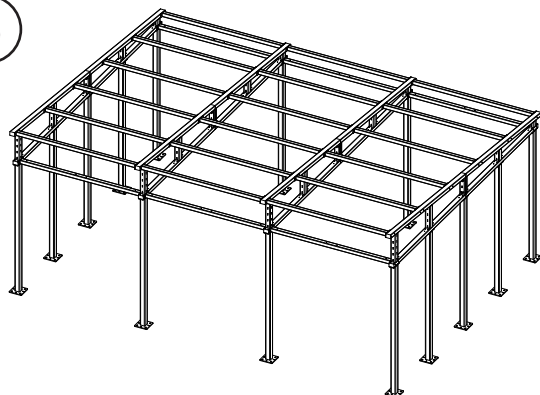
4



For shelters with side panels, install the purlins for panels (these are the same as the other purlins but with (4) holes through the tube) with (4) 3/8" x 5.5" bolts, (4) washers, (4) lock washers, and (4) nuts each. Leave finger-tight.

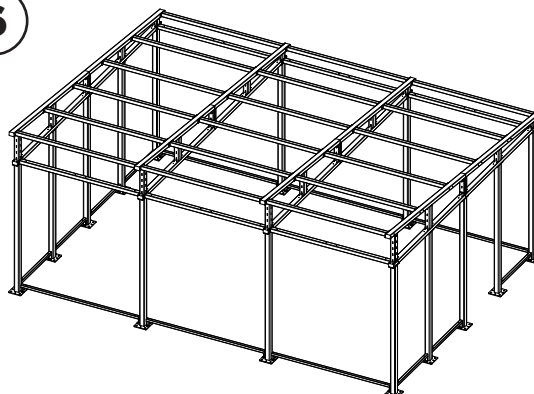
For shelters without side panels, these purlins are the same as all other purlins.

5



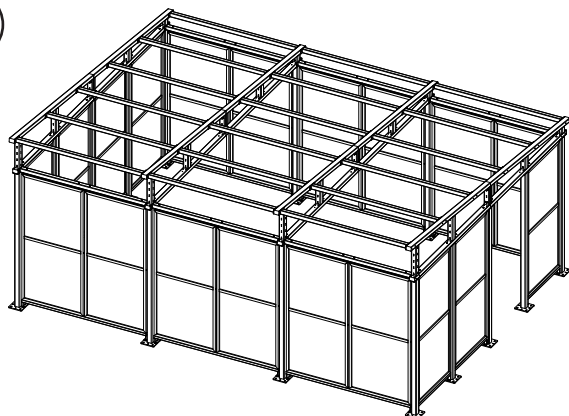
Install the purlins with (4) 3/8" x 5.5" bolts, (4) washers, (4) lock washers, and (4) nuts each. Fully tighten all purlins.

6



For shelters with side panels, install the front and side panel supports between every upright, except where the door will be installed. Align slots in the panel support with the slots in the upright, drill 3/8" diameter holes, and fasten with 3/8" wedge anchors with nuts finger-tight.

7

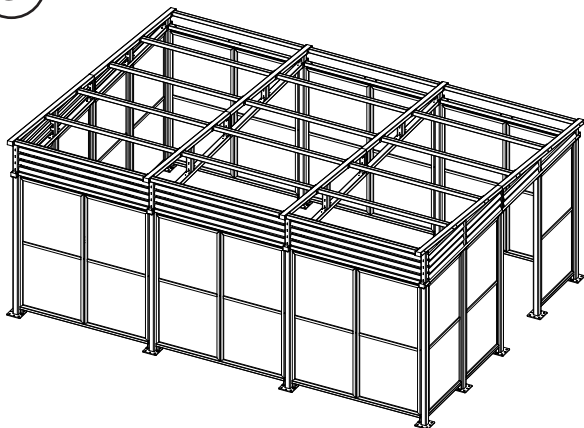


For polycarbonate panels, install the panels with (4) 8mm bolts and (4) lock washers. (2) 130mm bolts on top and (2) 65mm bolts on the bottom. The bolts will be received by square nuts that slide into the panel grooves. The gap on top of the panel will be filled with (2) 1.25" aluminum spacers and several washers if needed. The uprights and panel supports may be slightly moved in order to get the panels as square as possible.

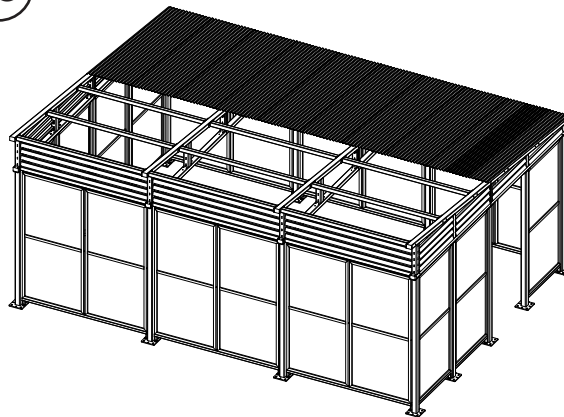
For wire mesh panels, install the panels with (4) 5/16" bolts and (4) lock washers. (2) 5.5" bolts on top and (2) 3" bolts on the bottom. The bolts will be received by rivet nuts in the panels. The gap on top of the panel will be filled with (2) 1.25" aluminum spacers and several washers if needed.

8

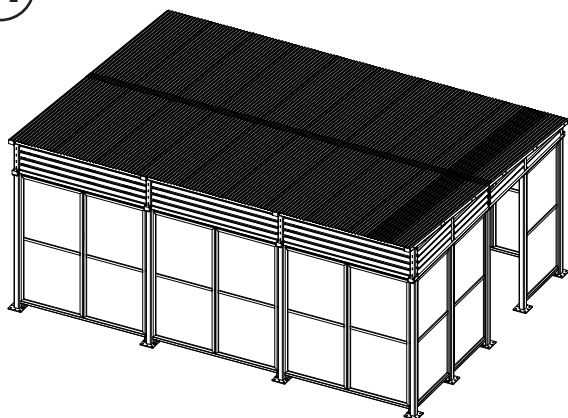
Once all the panels are properly placed, tighten all the upright anchors and bolts attaching the trusses.

9


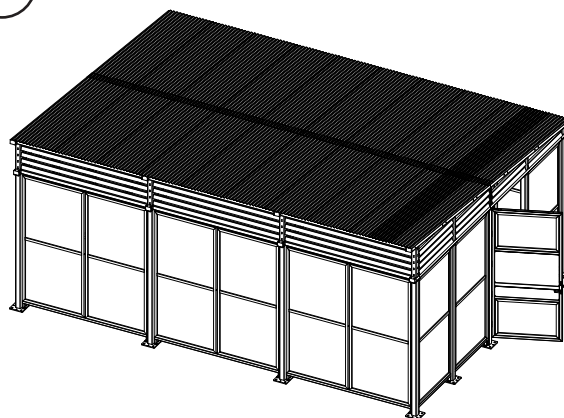
Install front and side louvers with (4) $\frac{1}{4}$ " x 5" bolts, (4) washers, (4) lock washers, and (4) nuts. Tighten all.

10


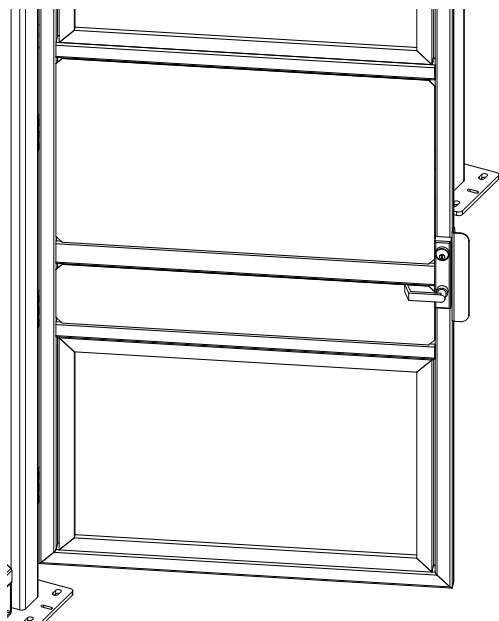
Place the first row of type S decks and fasten with (6) self-drilling screws each to the purlins and trusses. Each deck will provide 30" of coverage; the last deck will overlap more.

11


Place the second row of type S decks and fasten with (6) self-drilling screws each.

12


Attach door with (4) hinges and (8) $\frac{1}{4}$ " x 1" thread-cutting screws each. A $\frac{7}{32}$ " pilot hole will need to be drilled for each thread-cutting screw. Lubricate each thread-cutting screw before installing. The door bottom should be 4.5" off the ground and the door front should be flush with the uprights. See individual product instructions to install door trim, crash bar, door closer.

13

Install strike guard with (4) self-drilling screws. Door should close just enough to allow the latch to engage the strike.

14

See shelter assembly drawing for specific bike rack placement locations.

WELLS + ASSOCIATES

MEMORANDUM

Attachment #9



11220 Assett Loop
Suite 202,
Manassas, VA 20109
703-365-9262
WellsandAssociates.com

TO: David Stromberg, AICP
Town of Herndon, Virginia

FROM: Kevin R. Fellin, P.E.

CC: Peter Kleeblatt
Ken Wire

SUBJECT: Parking Demand Assessment

RE: 315 Elden Street Adaptive Reuse
ZMA #21-01

DATE: April 6, 2022

The purpose of this memorandum is to provide additional information in support of the parking reduction request that is associated with the 315 Elden Street Adaptive Reuse application [Zoning Map Amendment Application (ZMA) #21-01].

Background. The subject proposal is seeking a parking reduction based in part due to its unique characteristics of an adaptive reuse from an existing hotel use to a new multifamily residential development that would yield approximately 74 percent studio/1-bedroom units, 26 percent 2-bedroom units, and zero (0) units of 3 or more bedrooms.

Parking Demand Counts. To further support the subject parking reduction request, actual parking demand counts were collected at five (5) existing multifamily developments within the area of the Town of Herndon. The location of each site is shown on Figure 1 and summarized in more detail on Table 1. As shown in Table 1, specific information is provided for each location with respect to the bedroom unit mix, parking supply, and the number of vehicles parked at each site (parking demand). The parking occupancy counts were measured at each site during the overnight hours between Monday, March 28th and Tuesday, March 29th of this year when the residential parking demand is typically at its maximum. Each site reported to be operating at a 95 percent or greater occupancy so for the purpose of this analysis, each site was considered full occupied.

WELLS + ASSOCIATES

MEMORANDUM

Figure 1
Site Location Map



Table 1
 315 Elden Street Adaptive Reuse
 Parking Comparison with Existing Herndon Project (1) (2)

Location	Overall % of Studio & 1 BR Units	Overall % of 2+ BR Units	Bedroom Unit Mix					Total Units (DUs)	Total Beds (beds)	Parking Supply (spaces)	Parking Supply (spaces/Bed)	Parking Demand (spaces) (3)	Parking Demand (spaces/Bed)
Studios (DUs)	1-BR (DUs)	2-BR (DUs)	3-BR (DUs)	4-BR (DUs)									
Existing Residential Developments													
661 Dulles Park Ct, Herndon, VA <i>Percent Unit Type</i>	10%	90%	0 0%	18 10%	53 29%	113 61%	0 0%	184	463	258	0.56	239	0.52
140 Laurel Way, Herndon, VA <i>Percent Unit Type</i>	50%	50%	0 0%	224 50%	226 50%	0 0%	0 0%	450	676	387	0.57	278	0.41
1241-1269 Elden St, Herndon, VA <i>Percent Unit Type</i>	20%	80%	0 0%	36 20%	54 30%	54 30%	36 20%	180	450	271	0.60	241	0.54
831 Locust St, Herndon, VA <i>Percent Unit Type</i>	40%	60%	0 0%	36 40%	49 54%	5 6%	0 0%	90	149	100	0.67	93	0.62
13000 Wilkes Way, Herndon, VA <i>Percent Unit Type</i>	35%	65%	0 0%	112 35%	176 55%	32 10%	0 0%	320	560	480	0.86	375	0.67
										Average Supply	0.65	Average Demand	0.55
Proposed Residential Development 315 Elden Street Adaptive Reuse <i>Percent Unit Type</i>	74%	26%	28 16%	98 58%	44 26%	0 0%	0 0%	170	214	184	0.86		

Note(s):

- (1) Program and parking supply information obtained from the Pinkard Group.
- (2) All of the existing multifamily developments are nearly fully occupied between 95.0% to 98.4% occupancy.
- (3) Residential parking demand counts were collected during the overnight hours between Monday, March 28th and Tuesday, March 29th when residential parking demands would be at their maximum.

WELLS + ASSOCIATES

MEMORANDUM

ITE Parking Generation Manual. According to the Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition, it states a project's bedroom unit mix correlates to parking demands where ITE continues to seek parking studies that include the number of bedrooms. Below is an excerpt from ITE:

"It is expected that the number of bedrooms and number of residents are likely correlated to the parking demand generated by a residential site. Parking studies of multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e. number of units by number of bedrooms at the site complex)."

To that end, the parking supply and parking demand summarized in Table 1 are reported in terms of "spaces per bed".

Parking Supply Results. As shown on the Table 1, all of the measured sites provide an effective parking supply that ranged between 0.56 to 0.86 spaces per bed (or an average parking supply of 0.65 spaces per bed).

The subject proposal would provide approximately 0.86 spaces per bed which is on the higher end of the comparable sites that were evaluated in the Town of Herndon.

Parking Demand Results. Also shown on the Table 1, the parking occupancy counts that were conducted at each site demonstrated an effective parking demand that ranged between 0.41 to 0.67 spaces per bed (or an average parking demand of 0.55 spaces per bed).

Based on a proposed parking supply of approximately 0.86 spaces, the site would provide adequate parking to serve the site to serve peak resident demands.

I hope the information provided herein addresses any remaining questions and/or comments.

WELLS + ASSOCIATES**MEMORANDUM**

11220 Assett Loop
Suite 202,
Manassas, VA 20109
703-365-9262
WellsandAssociates.com

TO: David Stromberg, AICP
Town of Herndon, Virginia

FROM: Kevin R. Fellin, P.E.

SUBJECT: Traffic Impact Study: The Use of 2021 Traffic Counts

RE: 315 Elden Street Adaptive Reuse
ZMA #21-01

DATE: March 1, 2022

The purpose of this memorandum is to provide additional information concerning the existing traffic counts that were utilized in the Traffic Impact Study (TIS) for the 315 Elden Street Adaptive Reuse application [Zoning Map Amendment Application (ZMA) #21-01].

Site Location

The property is located at the southwest quadrant of the Elden Street/Herndon Parkway intersection at 315 Elden Street. The 6.48-acre property is also identified as Parcel # 017-1 ((02)) 0007 and is currently occupied by the Residence Inn Marriott that operates as an extended stay hotel.

Background

A TIS dated October 26, 2021 was submitted to Town staff that evaluated the traffic impacts associated with the proposed adaptive reuse of an existing Residence Inn Marriott hotel (± 168 rooms) to a new residential community with up to 174 multi-family residential dwelling units (DUs). A scoping meeting was held with Town staff on October 6, 2021 to discuss the parameters of the traffic impact study (e.g. traffic counts, study intersections, build out year, and other general assumptions). At the scoping meeting it was agreed the TIS would utilize existing traffic counts that were collected in September 2021 while providing a section in the TIS that discussed the traffic counts were collected during the on-going, worldwide COVID-19 pandemic. The TIS would also compare the existing traffic counts to any available nearby traffic counts that were collected pre-pandemic.

WELLS + ASSOCIATES

MEMORANDUM

Traffic Counts

Overview. Throughout the region, collecting new traffic counts for traffic impact studies or related studies during the COVID-19 has been considered on a case-by-case. Emphasis to consideration has been given for those jurisdictions where public schools have fully returned to in-person learning. Ideally, traffic studies would still use historical traffic counts that were collected pre-pandemic.

Fairfax County's Protocol. On December 21, 2021, the Fairfax County Department of Transportation (FCDOT) released an executive summary that permits the universal collection of new traffic counts to proceed on January 4, 2022 for Non-Chapter 870 traffic impact studies where previous consideration was limited to a case-by-case consideration. FCDOT's executive summary applies to all traffic studies in Fairfax County with the exception of traffic studies submitted in accordance with Chapter 870 requirements where a Chapter 870 required traffic study is required for projects that add more than 5,000 vehicles per day to the adjacent road network. The subject Adaptive Reuse application was estimated to add only ±520 daily trips (24 AM peak hour trips/35 PM peak hour trips) to the adjacent road network.

FCDOT noted the following:

“Retail and other uses that were previously closed or operating at a limited capacity, are now fully operational with a few exceptions. Schools have been in session since the beginning of Fall 2021 and many commuters have returned to the office on at least a Part-time basis. FCDOT acknowledges that the traffic volumes today may still be lower than pre-pandemic; however, volumes have normalized to a point where reasonable baselines can be established.”

315 Elden Street Adaptive Reuse – Traffic Counts. The traffic counts collected for the 315 Elden Street Adaptive Reuse project were collected on Thursday, September 16th and Tuesday, September 21st of last year (2021). The consideration to collect traffic counts was in part due to the lack of historical traffic counts at the site's driveways and adjacent intersections. In keeping with typical requirements to conduct traffic counts, the data was collected on typical weekday (Tuesday, Wednesday, or Thursday) when local public schools had returned to in-person learning.

In the traffic study, the September 2021 traffic counts that were collected at the Elden Street/Herndon Parkway study intersection were compared to a traffic count that was collected in year 2017 at the Elden Street/Carlisle Drive intersection located approximately 900 feet to the east on Elden Street. The comparison concluded that the impacts of COVID-19 resulted in a reduction of through traffic along Elden Street ranging from 36% to 42% during the weekday AM peak hour and 20% to 31% during the weekday PM peak hour.

WELLS + ASSOCIATES

MEMORANDUM

Traffic Impact Study

The purpose of the submitted traffic impact study is to provide a comparative analysis of two (2) relatively similar uses: existing extended stay hotel versus proposed multifamily residential. As noted previously, the change in use will relatively result in a minor increase in traffic. As noted in traffic impact study, the proposed change in use would not have an appreciable impact on the study intersections. The traffic study did apply a regional growth factor to the existing traffic counts at a rate of one percent compounded per year from 2021 to 2026 to account for any other approved, unbuilt projects in the area.

Based on the Town's review of the traffic impact study, the Town commented on the extent traffic had reduced as a result of COVID-19.

Updated Traffic Analyses

To best address comments associated with traffic counts collected during COVID-19, the baseline traffic counts from the traffic impact study were adjusted by increasing the existing traffic counts by approximately 30% to account for the overall average peak hour increase in traffic as noted in the traffic impact study. In review of the results, the minor increase in new site generated trips as a result of the proposed adaptive reuse continues to be minimal and all of the key study intersections would continue to operate at acceptable levels of service. The reported intersection level of service from the submitted traffic impact study is included as Attachment I. The reported intersection level of service that incorporates a 30% adjusted increase to the existing traffic counts is included as Attachment II.

Summary

Based on relatively minor change in trips resulting from the proposed adaptive reuse from an existing hotel to residential, the comparative traffic analysis concluded the proposal would not have an appreciable impact on the road network whether using the existing traffic counts collected in 2021 or an adjusted version that increased traffic to pre-pandemic conditions.

I hope the information provided herein addresses any remaining questions and/or comments.

Table 3-2
315 Elden Street Adaptive Reuse
Level of Service Summary

Intersection	Operating Condition	Street Name	Approach/ Movement	Existing 2021		Background 2026		Total Future 2026				
				AM	PM	AM	PM	AM	PM			
1 Elden Street/Site Entrance	STOP	Elden Street Site Entrance	EBTR	A [0.0]	A [0.0]	NA	NA	NA	NA			
			WBT	A [0.0]	NA	NA	NA	NA				
			NBLR	B [10.7]	NA	NA	NA	NA				
VDOT Widening Right-in/out only from site entrance	STOP	Elden Street Site Entrance	EBTR	NA	NA	A [0.0]	A [0.0]	A [0.0]	A [0.0]			
			WBT	NA	NA	A [0.0]	A [0.0]	A [0.0]	A [0.0]			
			NBR	NA	NA	B [10.1]	B [11.2]	B [10.2]	B [11.3]			
2 Elden Street/Herndon Parkway	Signal	Elden Street	EBL	D (42.4)	C (31.4)	NA	NA	NA	NA			
			EBTR	E (57.3)	D (46.8)	NA	NA	NA	NA			
			WBL	D (38.1)	C (31.0)	NA	NA	NA	NA			
			WBT	D (44.4)	D (39.2)	NA	NA	NA	NA			
			WBR	D (40.4)	C (32.5)	NA	NA	NA	NA			
			NBL	B (18.0)	C (26.2)	NA	NA	NA	NA			
			NBT	C (20.4)	C (29.3)	NA	NA	NA	NA			
			NBR	B (17.7)	E (64.2)	NA	NA	NA	NA			
			SBL	B (14.1)	B (16.4)	NA	NA	NA	NA			
			SBTR	B (18.4)	C (20.9)	NA	NA	NA	NA			
			Overall	D (36.5)	D (37.8)	NA	NA	NA	NA			
			VDOT Widening Reconfigure existing dual WBR to single, continuous lane Add EB receiving lane on Elden Street Increase storage length at EBL Decrease storage length at WBL, NBL, NBR, and SBL	Signal	Elden Street	EBL	NA	NA	D (41.6)	C (30.9)	D (41.2)	C (30.7)
						EBTR	NA	NA	E (57.5)	D (47.0)	E (57.3)	D (47.0)
						WBL	NA	NA	D (39.0)	C (32.1)	D (38.6)	C (34.2)
WBT	NA	NA				D (43.1)	D (38.8)	D (43.0)	D (38.3)			
WBR	NA	NA				D (39.4)	C (32.3)	D (39.3)	C (32.0)			
NBL	NA	NA				B (19.1)	C (27.1)	B (19.3)	C (27.4)			
NBT	NA	NA				C (21.8)	C (30.3)	C (22.0)	C (30.6)			
NBR	NA	NA				B (19.1)	E (66.8)	B (19.5)	E (67.5)			
SBL	NA	NA				B (15.3)	B (17.1)	B (15.5)	B (17.3)			
SBTR	NA	NA				B (19.7)	C (21.9)	B (19.9)	C (22.1)			
Overall	NA	NA				D (36.8)	D (38.1)	D (36.9)	D (38.1)			
3 Herndon Parkway/Site Entrance	STOP	Site Entrance Herndon Parkway				EBR	A [9.1]	A [9.1]	A [9.1]	A [9.2]	A [9.2]	A [9.2]
						NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
						SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
4 Herndon Parkway/Grove Street	Signal	Grove Street	EBL	E (64.6)	D (50.6)	E (62.8)	D (50.7)	E (62.8)	D (50.7)			
			EBR	D (53.5)	D (43.0)	D (51.6)	D (42.7)	D (51.6)	D (42.6)			
			NBL	A (2.0)	A (3.4)	A (2.4)	A (3.3)	A (2.4)	A (3.4)			
			NBT	A (1.4)	A (3.6)	A (1.7)	A (3.5)	A (1.7)	A (3.5)			
			SBTR	A (5.5)	A (6.9)	A (6.8)	A (6.8)	A (6.8)	A (6.8)			
			Overall	A (7.6)	B (17.9)	A (7.7)	B (17.8)	A (7.7)	B (17.6)			
			5 Grove Street/ Site Entrance	STOP	Grove Street	EBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
						WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
						SBR	A [9.3]	A [8.6]	A [9.4]	A [8.7]	A [9.5]	A [8.7]
						Grove Street Site Entrance	EBL	E (64.6)	D (50.6)	E (62.8)	D (50.7)	E (62.8)
EBR	D (53.5)	D (43.0)					D (51.6)	D (42.7)	D (51.6)	D (42.6)		

Notes: (1) Numbers in parentheses () represent delay at signalized intersections in seconds per vehicle.
(2) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.
(3) Roadway names in bold are considered north/south for purposes of this analysis

Table 3-2 - Adjusted
315 Elden Street Adaptive Reuse
Level of Service Summary

Intersection	Operating Condition	Street Name	Approach/ Movement	Adjusted Background AM PM	Adjusted Total Future 2026 AM PM	Difference (Total Future - Background) AM PM
1 Elden Street/Site Entrance VDOT Widening Right-in/out only from site entrance	STOP	Elden Street Site Entrance	EBTR	NA	NA	NA
			WBT	NA	NA	NA
			NBLR	NA	NA	NA
	STOP	Elden Street Site Entrance	EBTR WBT NBR	A [0.0] A [0.0] B [10.6] A [0.0] A [0.0] B [12.1]	A [0.0] A [0.0] B [10.7] A [0.0] A [0.0] B [12.2]	0 0 0.1 0 0 0.1
2 Elden Street/Herndon Parkway VDOT Widening Reconfigure existing dual WBR to single, continuous lane Add EB receiving lane on Elden Street Increase storage length at EBL Decrease storage length at WBL, NBL, NBR, and SBL	Signal	Elden Street Herndon Parkway Herndon Parkway	EBL	NA	NA	NA
			EBTR	NA	NA	NA
			WBL	NA	NA	NA
			WBT	NA	NA	NA
			WBR	NA	NA	NA
			NBL	NA	NA	NA
			NBT	NA	NA	NA
			NBR	NA	NA	NA
			SBL	NA	NA	NA
			SBTR	NA	NA	NA
			Overall	NA	NA	NA
			EBL	D (38.5)	D (38.2)	-0.3
			EBTR	E (58.0)	E (58.0)	0
			WBL	D (51.7)	D (52.0)	0.3
3 Herndon Parkway/Site Entrance 4 Herndon Parkway/Grove Street	Signal	Site Entrance Herndon Parkway Herndon Parkway	WBT	D (44.0)	D (44.7)	0.7
			WBR	D (39.9)	D (39.9)	0
			NBL	D (35.8)	D (35.7)	-0.1
			NBT	C (22.6)	C (22.7)	0.1
			NBR	C (25.8)	C (25.9)	0.1
			SBL	C (22.6)	C (22.7)	0.1
			SBTR	B (19.2)	B (19.3)	0.1
			Overall	C (23.8)	C (23.9)	0.1
			Overall	D (37.9)	D (38.1)	0.2
			EBR	A (9.2)	A (9.3)	0.1
			NBT	A [0.0]	A [0.0]	0
			SBTR	A [0.0]	A [0.0]	0
			EBL	E (63.1)	E (63.1)	0
			EBR	D (50.7)	D (50.7)	0
5 Grove Street/ Site Entrance	STOP	Grove Street Grove Street Site Entrance	NBL	D (44.0)	D (43.9)	-0.1
			NBT	A (2.7)	A (2.8)	0.1
			SBTR	A (1.7)	A (1.7)	0
			Overall	A (6.1) A (7.8) B (18.8)	A (6.2) A (7.8) B (18.7)	0.1 0 -0.1
5 Grove Street/ Site Entrance	STOP	Grove Street Grove Street Site Entrance	EBT	A [0.0]	A [0.0]	0
			WBTR	A [0.0]	A [0.0]	0
			SBR	A [9.8]	A [8.7]	0
			Overall	A [0.0] A [0.0] A [9.8]	A [0.0] A [0.0] A [8.7]	0 0 0

Note: (1) Numbers in parentheses () represent delay at signalized intersections in seconds per vehicle.

(2) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(3) Roadway names in bold are considered north/south for purposes of this analysis

315 ELDEN ADAPTIVE REUSE TRAFFIC IMPACT STUDY TOWN OF HERNDON, VIRGINIA

1ST Submission

Prepared for:

Elden Street Owner, LLC (Applicant)

Prepared by:

Kevin R. Fellin, P.E.

krfellin@wellsandassociates.com

Andrew Buntua, P.E., PTOE

acbuntua@wellsandassociates.com

Kathryn Morrissey, EIT

kmmorrissey@wellsandassociates.com

Wells + Associates, INC

703.365.9262

www.WellsAndAssociates.com

October 26, 2021



[@WellsAssoc](https://twitter.com/WellsAssoc)



[@WellsandAssociates](https://www.facebook.com/WellsandAssociates)



[Wells + Associates](https://www.linkedin.com/company/Wells+Associates)

**315 ELDEN STREET ADAPTIVE REUSE
TRAFFIC IMPACT STUDY
TOWN OF HERNDON, VIRGINIA**

TABLE OF CONTENTS

	<u>PAGE</u>
Section 1	
INTRODUCTION	1
STUDY SCOPE	1
PURPOSE	1
STUDY OBJECTIVES.....	1
STUDY METHODOLOGY.....	3
STUDY AREA	3
Section 2	
BACKGROUND INFORMATION	5
SITE LOCATION	5
DESCRIPTION OF PROPOSED DEVELOPMENT.....	5
SITE ZONING.....	5
COMPREHENSIVE PLAN	8
ELDEN STREET WIDENING PROJECT	8
TRANSIT SERVICE.....	8
BICYCLE AND PEDESTRIAN CONNECTIONS	11
Section 3	
ANALYSIS OF EXISTING CONDITIONS	12
TRAFFIC COUNTS	12
Historical Traffic Counts	12
OPERATIONAL ANALYSIS	17
Levels of Service	17
Queues	21
Section 4	
ANALYSIS OF BACKGROUND FUTURE CONDITIONS WITHOUT DEVELOPMENT (2026)	22
TRAFFIC VOLUMES	22
Methodology/Assumptions.....	22
Site Traffic Reassignments.....	22
Regional Traffic Growth.....	22
Pipeline Development	22
BACKGROUND FUTURE TRAFFIC FORECASTS	28
FUTURE LANE USE AND TRAFFIC CONTROL.....	28
OPERATIONAL ANALYSIS	28
Levels of Service	28
Queues	28

315 ELDEN STREET ADAPTIVE REUSE
TRAFFIC IMPACT STUDY
TOWN OF HERNDON, VIRGINIA

TABLE OF CONTENTS, CONTINUED

	<u>PAGE</u>
Section 5	
SITE TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT	31
OVERVIEW	31
SITE TRIP GENERATION ANALYSIS	31
SITE ACCESS.....	31
HOTEL SITE TRIPS REMOVED	33
SITE TRIP DISTRIBUTION AND ASSIGNMENTS	33
INFLUENCE AREA.....	33
 Section 6	
ANALYSIS OF FUTURE CONDITIONS WITH DEVELOPMENT (2026)	38
TOTAL FUTURE TRAFFIC FORECASTS	38
TOTAL FUTURE OPERATIONAL ANALYSIS	38
Levels of Service	38
Queues	38
 Section 7	
CONCLUSIONS	40



**315 ELDEN STREET ADAPTIVE REUSE
TRAFFIC IMPACT STUDY
TOWN OF HERNDON, VIRGINIA**

LIST OF FIGURES

FIGURE	TITLE	<u>PAGE</u>
1-1	Study Intersections	4
2-1	Site Location	6
2-2	General Development Plan (Reduction)	7
2-3	Elden Street Widening Project.....	9
2-4	Bus Route Map	10
3-1	Existing Peak Hour Vehicular Traffic Volumes	13
3-2	Existing Peak Hour Pedestrian Traffic Volumes	14
3-3	Existing Peak Hour Bicycle Traffic Volumes	15
3-4	Existing Lane Use and Traffic Controls.....	18
4-1	Reassignment of Existing Site Traffic (Elden Street Widening Project)	23
4-2	Reassigned, Existing Peak Hour Vehicular Traffic Volumes.....	24
4-3	Regional Traffic Growth.....	25
4-4	Pipeline (Hotel) Trip Assignments.....	27
4-5	2026 Background Future Traffic Forecasts (without Proposed Development)	29
4-6	Future Lane Use and Traffic Control	30
5-1	Hotel Site Trips Removed	34
5-2	New Site Trip Assignments and Percent Distributions.....	35
5-3	Net New Site Trips Added to the Roadway Network	36
6-1	2026 Total Future Traffic Forecasts	39

315 ELDEN STREET ADAPTIVE REUSE
TRAFFIC IMPACT STUDY
TOWN OF HERNDON, VIRGINIA

LIST OF TABLES		
TABLE	TITLE	<u>PAGE</u>
3-1	Historical Traffic Count Summary	16
3-2	Level of Service Summary	19
3-3	95 th /50 th Percentile Queue Summary	20
4-1	Pipeline Trip Generation Summary.....	26
5-1	Site Trip Generation Summary	32



**315 ELDEN STREET ADAPTIVE REUSE
TRAFFIC IMPACT STUDY
TOWN OF HERNDON, VIRGINIA**

LIST OF APPENDICES

APPENDIX	TITLE
A	Scope of Work Agreement Letter
B	Levels of Service Descriptions
C	Traffic Signal Timing Sheets
D	Traffic Count Data
E	Existing Synchro Worksheets
F	Background Future without Development (2026) Synchro Worksheets
G	Total Future with Development (2026) Synchro Worksheets

Section 1 INTRODUCTION

STUDY SCOPE

PURPOSE

This report presents the results a traffic impact study (TIS) for the proposed adaptive reuse of an existing Residence Inn Marriott hotel to provide a new residential community with up to 174 multi-family residential dwelling units (DUs) (“the Project”).

In the Commonwealth of Virginia, all land development proposals which meet certain specific trip generation thresholds, are subject to the regulations outlined in VDOT’s *Traffic Impact Analysis Regulations Administrative Guidelines* dated December 2018 (the “Administrative Guidelines” or “Guidelines”). According to the Guidelines, a development proposal is generally considered to substantially impact the transportation network if it generates 5,000 or more daily vehicle trips. Based on a review of the Applicant’s proposed development plan, a Chapter 870 compliant TIA was **not** required.

However, a TIS is required by the Town of Herndon in order to assess the impacts, if any, associated with the conversion from an existing hotel to the proposed new residential development. The purpose of this report is then to address the results of such an analysis. To that end, representatives of the development team met with Town of Herndon staff to identify the study scope and agree on certain specific study parameters. A copy of the scoping letter is included in Appendix A.

STUDY OBJECTIVES

The primary objectives of the TIS are to:

- Evaluate existing weekday AM and weekday PM peak hour traffic conditions for year 2021.
- Provide an analysis of peak hour traffic conditions without and with the new Project for year 2026.
- Identify development-related traffic impacts (if any), and
- Recommend improvements to mitigate potential adverse effects which might be caused by the Project.

Utilizing a four-step process consisting of trip generation, trip distribution, trip adjustments and traffic assignments, future conditions were forecasted and intersections were evaluated in terms of levels of service and queuing both with and without the Project for year of 2026. Appropriate mitigation measures would then be identified and evaluated to remediate impacted levels of service, where applicable and appropriate.

Sources of data for this analysis included traffic counts conducted by Wells + Associates; VDOT; the Institute of Transportation Engineers (ITE); Town of Herndon; VDOT; Elden Street Owner, LLC; Bohler; Wire Gill LLP; the Highway Capacity Manual 2000; Synchro version 10.3; and the files and libraries of Wells + Associates.

Tasks undertaken in this study included the following:

1. Reviewed the Applicant's proposed plans and other background data.
2. Conducted a field reconnaissance of existing roadway and intersection geometries, and traffic controls.
3. Participated in meetings/correspondence with Town of Herndon staff, and the project team to establish the general study scope and specific analysis parameters.
4. Conducted existing traffic counts at the study intersections during the weekday AM and weekday PM peak periods in year 2021.
5. Analyzed existing 2021 levels of service and vehicle queues at each of the key study intersections during typical weekday peak hours.
6. Reassigned existing traffic associated with traffic pattern changes as a result of the planned Elden Street widening project.
7. Estimated the number of weekday peak hour trips that would be generated by the existing hotel (i.e. pipeline projects) on the subject site and add the difference between what hotel trips that were measured in the field to the adjacent roadway. Trip estimates are based on standard Institute of Transportation Engineers (ITE) 10th edition, Trip Generation Manual rates and/or equations. Regional traffic growth (one percent compounded) was also applied to the study intersections to account for any other approved, unbuilt projects in the area.
8. For year 2026, background future traffic forecasts (without the proposed development) were developed using the existing traffic counts, reassigned existing traffic, regional traffic growth, and assigned pipeline traffic forecasts.
9. Calculated weekday peak hour background (without the proposed development) levels of service and vehicle queues at each of the key study intersections for year 2026 based on background traffic forecasts and existing/planned intersection traffic controls and geometries.
10. Removed existing and forecasted trips associated with the existing hotel.
11. Estimated the number of weekday AM and weekday PM peak hour trips that would be generated by build-out of the proposed residential Project using ITE 10th edition, Trip Generation Manual.

12. Developed weekday AM and PM peak hour total future traffic forecasts for year 2026 based on the background future traffic forecasts, removed hotel trips, and the added new residential site-generated traffic assignments.
13. Calculated peak hour total future levels of service and vehicle queues for each of the key study intersections based on projected total future traffic forecasts, future lane use and traffic controls, and planned intersection geometries for year 2026.
14. Identified improvements and/or enhancements that would benefit future traffic volumes with the proposed Project, if any.

STUDY METHODOLOGY

Synchro software (version 10.3) was used to evaluate levels of service at the study intersections during the weekday AM and weekday PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized intersections analyzed herein were taken from the Highway Capacity Manual 2000 (HCM) reports generated by Synchro version 10.3. Level of service descriptions are included in Appendix B. The base Synchro files were developed based on traffic signal timings obtained from the Town of Herndon that are included in Appendix C.

STUDY AREA

This study was conducted in accordance with the parameters set forth in the scoping letter that was agreed to by the Town of Herndon and the Applicant's representatives (see Appendix A). The study area was selected based on those intersections potentially affected by the proposed development. The study area intersections are shown on Figure 1-1.

For purposes of this analysis, the following intersections are included in the study area:

1. Elden Street/Existing Site Entrance
2. Herndon Parkway/Elden Street
3. Herndon Parkway/Existing Site Entrance
4. Herndon Parkway/Grove Street
5. Grove Street/Existing Site Entrance

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG



Figure 1-1
Study Intersections

-  Site Location
-  Study Intersections



NORTH

315 Elden Adaptive Reuse
Town of Herndon, Virginia



Section 2

BACKGROUND INFORMATION

SITE LOCATION

As shown in Figure 2-1, the Project is comprised of a single parcel and located at 315 Elden Street on approximately 6.48 acres in the southwest quadrant of the Elden Street/Herndon. The property is also identified as Parcel # 017-1 ((02)) 0007. The site area for the proposed residential development is currently developed with the Residence Inn Marriott.

DESCRIPTION OF PROPOSED DEVELOPMENT

The Applicant is seeking a Zoning Map Amendment application that would convert the existing Residence Inn Marriott hotel into a multi-family residential use, all within the existing hotel buildings. The Residence Inn Marriott currently operates as extended stay hotel with “apartment-inspired suites” that feature fully equipped kitchens and practical home accommodations and leisure (e.g pool and sport court). The existing hotel is approximately 121,441 square feet (SF) and comprised of multiple two-story/garden style buildings with a total of 168 keys (hotel rooms). The subject proposal would convert the existing hotel use to a residential community with up to 174 multi-family residential dwellings units (DUs) of which approximately 50 percent will be designated as work force housing. The Project will also feature approximately 73.5 percent 0-1 bedroom units (17.1 percent studio and 56.4 percent 1-BR) and approximately 26.5 percent 2-BR units. No 3 or more-bedroom units are proposed. A portion of the ancillary hotel space (office, meeting areas) may be converted into new dwelling units to potentially increase the site’s unit count above the existing 168 hotel rooms.

Vehicular access to the site would continue to be provided via the site’s three (3) existing commercial entrances: one (1) each on Elden Street, Herndon Parkway, and Grove Street. The entrances on Herndon Parkway and Grove Street are currently and will remain right-in/right-out driveways. The entrance on Elden Street currently acts as a full-movement entrance but will be restricted to a right-in/right-out upon completion of the Elden Street widening improvement project that is scheduled to go under construction in 2026. For planning purposes, the traffic impact study will evaluate a single future study year in 2026 that assumes completion of the Elden Street Widening project.

A plan reduction of the General Development Plan is shown on Figure 2-2.

SITE ZONING

The site is currently zoned Commercial Services District (CS) with Floodplain Overlay District (FPO) in the far eastern edge. The Property is planned for “Adaptive Area Residential” according to the Town’s 2030 Comprehensive Plan Map. This Application seeks to rezone from CS to Planned Development - Urban Residential (PD-UR).

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

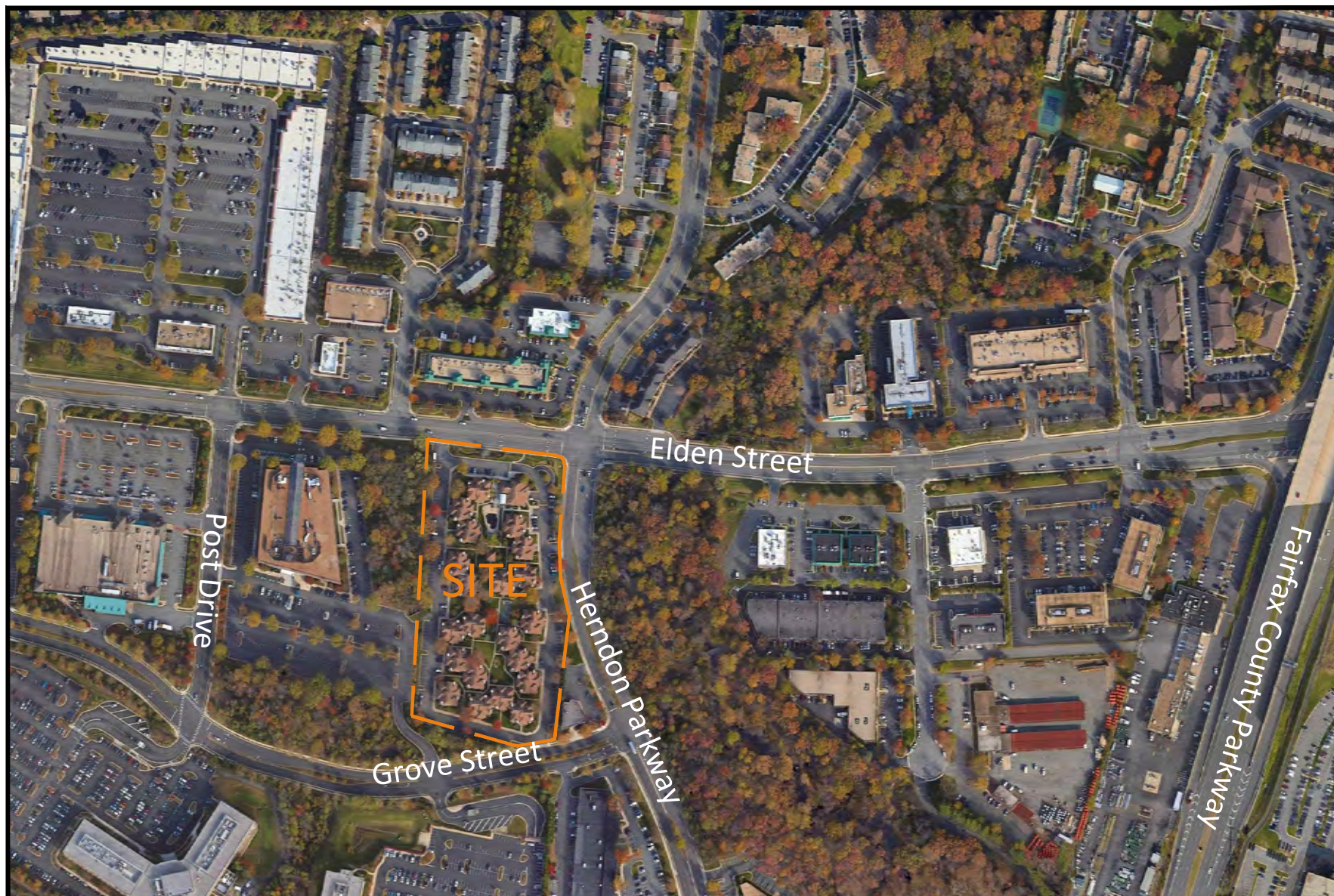
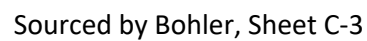


Figure 2-1
Site Location

 Site Location



315 Elden Adaptive Reuse
Town of Herndon, Virginia



NORTH



COMPREHENSIVE PLAN

The Town of Herndon approved a change in the property's Comprehensive Plan designation on November 07, 2020 (CPA #20-01) from "Business Corridor" to "Adaptive Area Residential." In addition, the Town approved a Zoning Ordinance Text Amendment, ZOTA #21-02, to amend Chapter 78 (Zoning), Article V (Planned Development Districts), Section 78-51.1, entitled PD-UR (Planned Development-Urban Residential) to allow for an increase in permitted density when a zoning map amendment includes adaptive reuse of existing buildings for residential dwelling units.

ELDEN STREET WIDENING PROJECT

The Elden Street widening project within the Town of Herndon seeks to make pedestrian, bicycle, and vehicular improvements along Elden Street between Monroe Street and the Fairfax County Parkway. Approximately 1/3 mile of the project will widen Elden Street from four (4) to six (6) lanes between Herndon Parkway and the Fairfax County Parkway. According to the project's website, the following improvements are included:

- Adding bike lanes from Monroe Street to Herndon Parkway
- Adding from Herndon Parkway to Fairfax County Parkway cycle tracks, which combine the user experience of a separated path with the on-street infrastructure of a conventional bike lane
- Replacing the culverts over Sugarland Run with a new bridge to provide better stream flow and reduce potential flooding
- Pedestrian enhancements
- Landscaping and planted medians where feasible

Right-of-Way (ROW) acquisition was anticipated to begin in May 2019. The widening and bicycle improvements are anticipated to begin in early 2025.

As shown on Figure 2-3, within the immediate vicinity of the site, the future widening project will construct a raised median along the subject site's frontage along Elden Street that would restrict the site's existing entrance to a right-in/right-out.

TRANSIT SERVICE

The subject area is served directly by the Fairfax Connector and RIBS 5 with existing bus connections to the Wiehle-Reston East Metrorail Station, Reston Town Center Transit Station, and Herndon-Park&Ride. The bus routes that directly serve the site are summarized below and shown on Figure 2-4:

- **Route 950 (Herndon-Reston)** - Provides Weekday, Saturday, and Sunday service to/from the Reston Town Center Transit Station, Herndon-Park&Ride, Wiehle-Reston East Metro Station

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

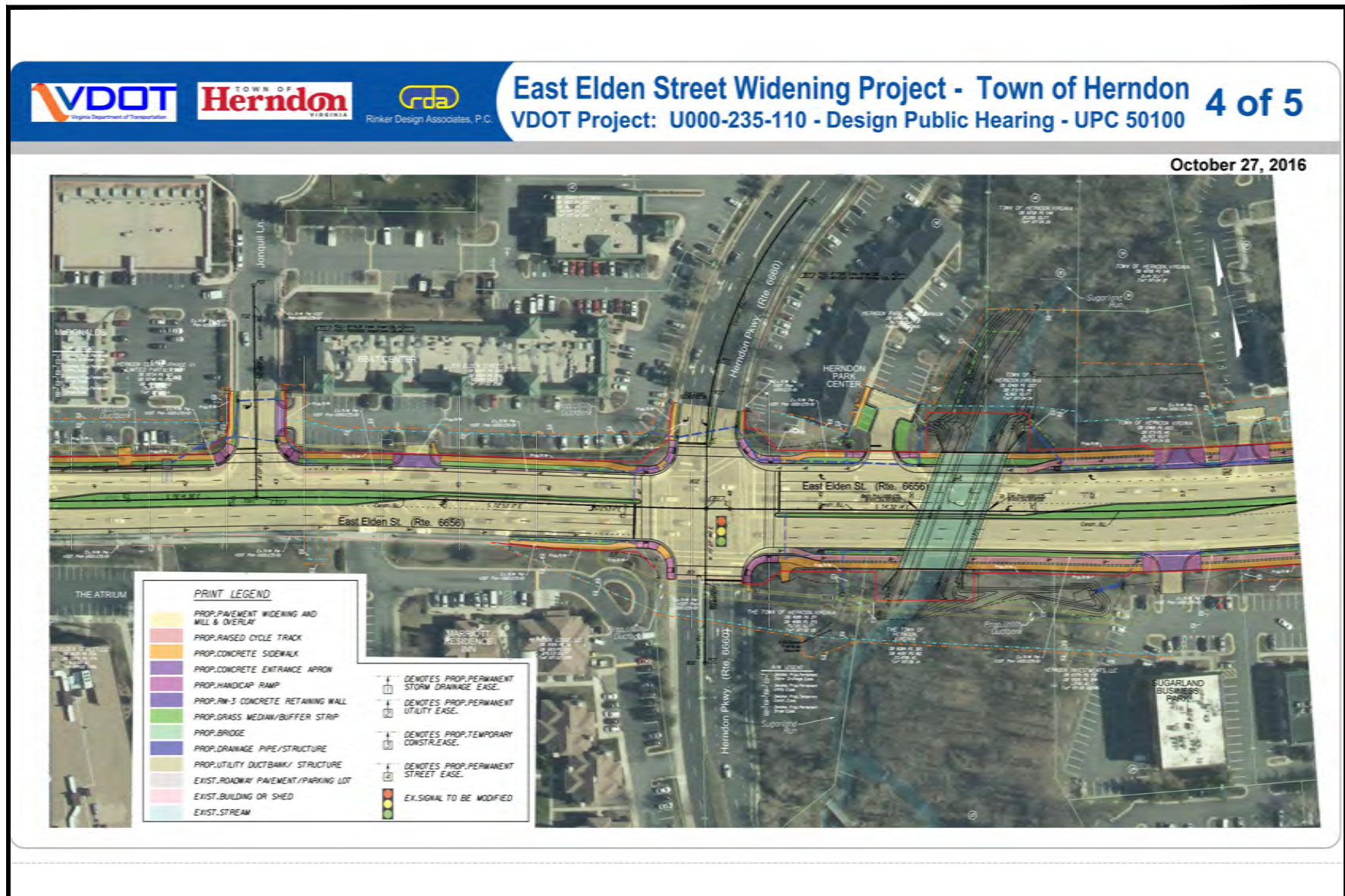


Figure 2-3
Elden Street Widening Project

Obtained from VDOT



315 Elden Adaptive Reuse
Town of Herndon, Virginia

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

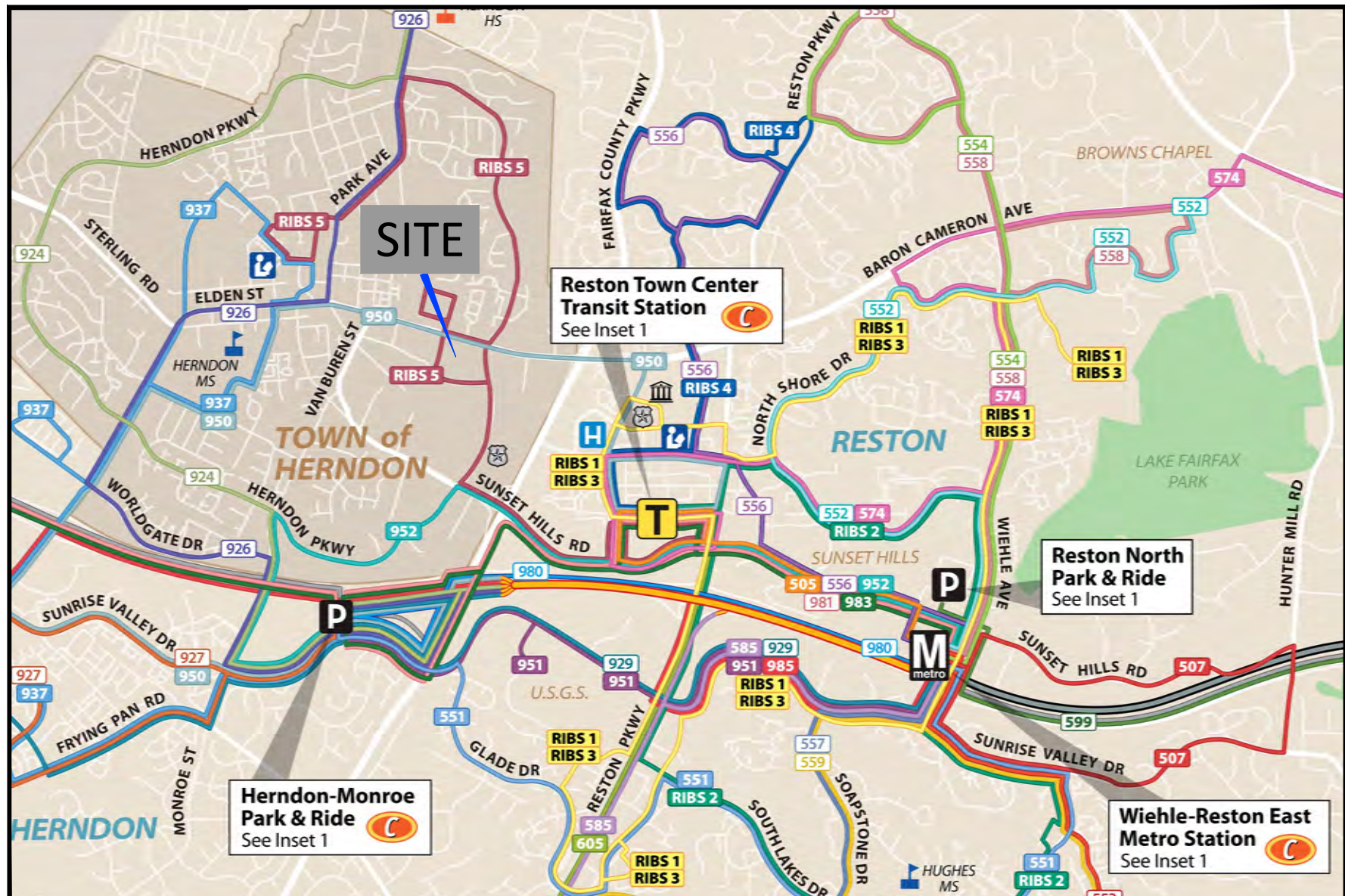


Figure 2-4
Bus Route Map

Obtained from Fairfax Connector



315 Elden Adaptive Reuse
Town of Herndon, Virginia

- **RIBS 5 (Herndon)** - Provides Weekday, Saturday, and Sunday service to/from the Reston Town Center Transit Station, Herndon Centre, Herndon Parkway, Dranesville Road, and Herndon Harbor House.

The site is also located just outside the one (1) mile radius from the future Reston Town Center and Herndon metrorail stations. It is anticipated that the existing bus routes will have modified routes and/or schedules when the Silver Line – Phase 2 formally opens in the coming year(s).

BICYCLE AND PEDESTRIAN CONNECTIONS

For bicyclists and pedestrians, the Project is located less than ¼ mile from the Washington and Old Dominion (W&OD) multiuse trail and is connected to this trail by continuous and well-lit sidewalks as well as the paved Sugarland Run trail. The W&OD trail connects to several nearby employment centers such as Downtown Herndon and Reston Town Center. The Project proposes to add on-site bicycle racks capable of holding approximately 24 bicycles.

Section 3

ANALYSIS OF EXISTING CONDITIONS

TRAFFIC COUNTS

Vehicle turning movement, pedestrian, and bicycle counts were obtained for the following key study intersections:

1. Elden Street/Existing Site Entrance
2. Herndon Parkway/Elden Street
3. Herndon Parkway/Existing Site Entrance
4. Herndon Parkway/Grove Street
5. Grove Street/Existing Site Entrance

The peak period traffic counts were conducted on Thursday, September 16, 2021 from 6 AM to 9 AM and from 4 PM to 7 PM when area public school were in session with in-person learning. The inbound and outbound traffic movements were recorded at each existing site entrance (Intersection #1, #3, and #5) where the mainline through volumes along Elden Street, Herndon Parkway, and Grove Street were then carried through from the traffic counts collected at Herndon Parkway/Elden Street (Intersection #2) and Herndon Parkway/Grove Street (Intersection #4) intersections. The intersection peak hours generally occurred from 8 AM to 9 AM and 4:30 PM to 5:30 PM.

Due a technical issue, the weekday PM peak period traffic count at the Grove Street/Existing Site Entrance study intersection (Intersection #5) was re-counted on Tuesday, September 21, 2021.

Around the time the existing traffic counts were collected, the Residence Inn Marriott reported the following hotel occupancy rates ranging from 39.9 to 50.6 percent occupancy:

- **Wednesday, September 15, 2021:** 75 of 168 rooms occupied or 44.6 percent occupied
- **Thursday, September 16, 2021:** 67 of 168 rooms occupied or 39.9 percent occupied
- **Monday, September 20, 2021:** 85 of 168 rooms occupied or 50.6 percent occupied
- **Tuesday, September 21, 2021:** 72 of 168 rooms occupied or 42.9 percent occupied

The individual intersection peak hour traffic volumes were utilized at the study intersections where applicable. The resulting baseline peak hour volumes used in this analysis are summarized on Figure 3-1, the pedestrian counts are shown on Figure 3-2, and bicycle counts are shown on Figure 3-3. The count data summary sheets are included for reference in Appendix D.

Historical Traffic Counts. Given the on-going Covid-19 pandemic conditions, it would be anticipated the traffic counts collected in September 2021 would continue to reflect abnormal conditions when compared to pre-Covid conditions before year 2020. However, current conditions have reflected a more stable condition than last year (2020) this same time. In review of VDOT's historical traffic counts as published by VDOT and shown on Table 3-1, between years 2015 and 2019, the average daily traffic along Elden Street had generally remained fairly stable

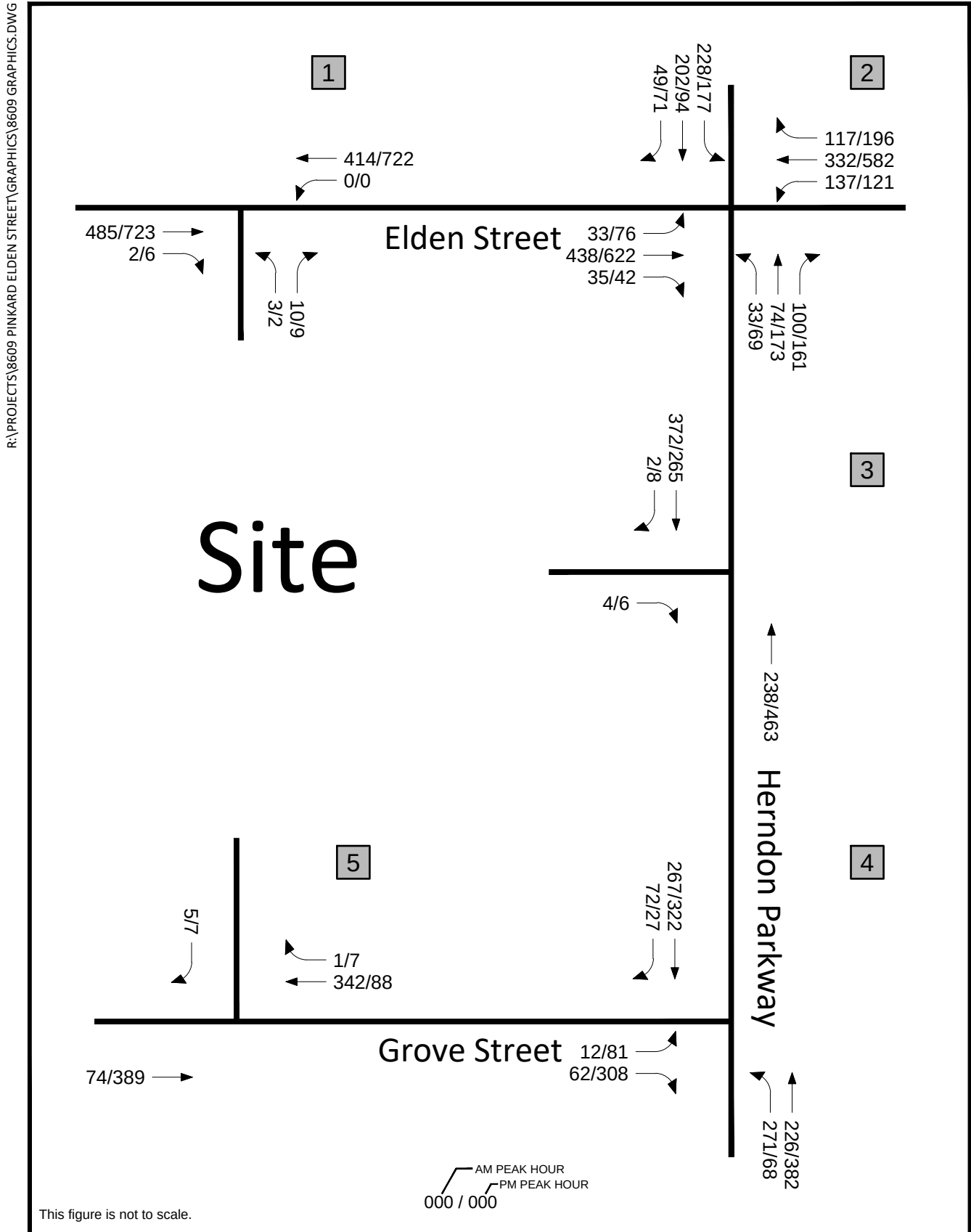


Figure 3-1
Existing Peak Hour Vehicular Traffic Volumes



315 Elden Adaptive Reuse
Town of Herndon, Virginia

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

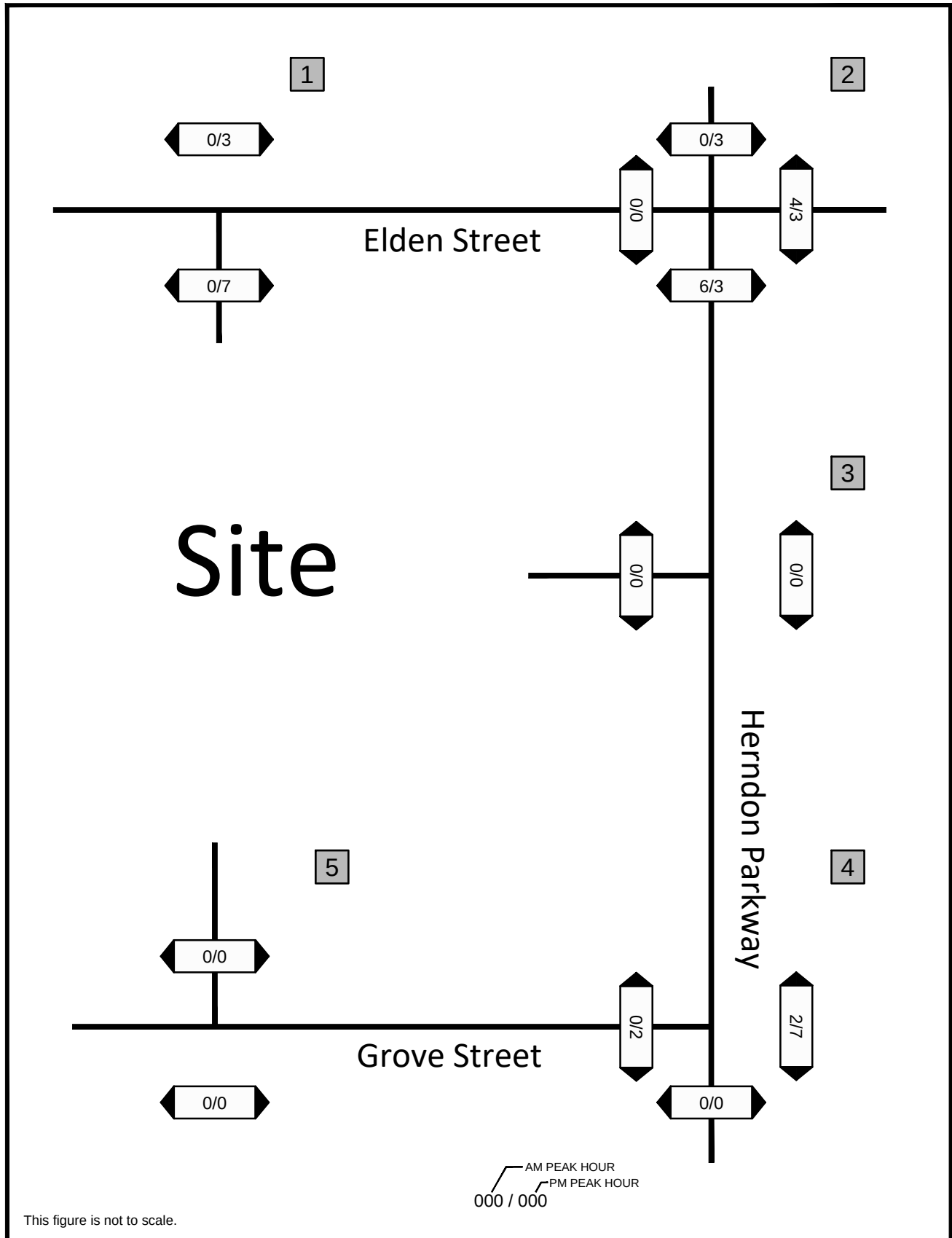
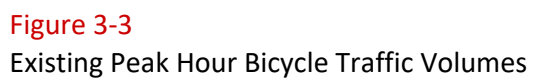


Figure 3-2
Existing Peak Hour Pedestrian Traffic Volumes



315 Elden Adaptive Reuse
Town of Herndon, Virginia



315 Elden Adaptive Reuse Town of Herndon, Virginia

Table 3-1
 315 Elden Adaptive Reuse
 Historical Traffic Count Summary (1)

Year	Elden Street (Between Herndon Pkwy - ECL Herndon) Annual Average Daily Traffic	
2015	31,000	
2016	31,000	
2017	30,000	
2018	30,000	
2019	30,000	
2020	22,000	
Year	Elden Street (Between Herndon Parkway and Carlisle Drive)	
	AM Peak Hour	PM Peak hour
2017 (Westbound Thru Traffic) (2)	914	1,545
2021 (Westbound Thru Traffic) (3)	586	899
Difference (2021 Minus 2017)	(328)	(646)
% Difference	-36%	-42%
2017 (Eastbound Thru Traffic) (2)	1,110	1,199
2021 (Eastbound Thru Traffic) (3)	766	960
Difference (2021 Minus 2017)	(344)	(239)
% Difference	-31%	-20%

Note(s):

- (1) AADT volumes obtained from VDOT
- (2) Obtained from the "Virginia Tire & Auto Herndon" Traffic Impact Analysis dated December 26, 2017. Intersection traffic counts collected on Thursday, October 19, 2017.
- (3) Intersection traffic counts collected on Thursday, September 16, 2021.

carrying between 30,000 to 31,000 vehicles per day (vpd). In year 2020, the daily traffic fell to 22,000 vpd. In comparison to a previous intersection traffic count that was collected on Thursday, October 19, 2017 at the nearby Elden Street/Carlisle Drive intersection to the east, it would suggest that the through traffic along Elden Street east of Herndon Parkway has decreased in 2021 from 20 to 42 percent. A comparison of the Elden Street through traffic east of Herndon Parkway as recorded in 2021 and 2017 is also summarized on Table 3-1. The traffic count data summary sheets for the 2017 traffic count at the Elden Street/Carlisle Drive intersection is also included in Appendix D.

OPERATIONAL ANALYSIS

Capacity/level of service (LOS) analyses were conducted at the study intersections based on the, the existing baseline traffic volumes shown on Figure 3-1, the pedestrian counts shown on Figure 3-2, the bicycle counts shown on Figure 3-3, and the existing lane use and traffic controls shown on Figure 3-4.

Synchro software (version 10.3) was used to evaluate levels of service, the 95th/50th percentile queues at the study intersections during the weekday AM and PM peak hours. Synchro is a macroscopic model used for optimizing traffic signal timing and performing capacity analyses at both signalized and unsignalized intersections. The software can model existing traffic signal timings or optimize splits, offsets, and cycle lengths for individual intersections, an arterial, or a complete network. Synchro allows the user to evaluate the effects of changing intersection geometrics, traffic demands, traffic control, and/or traffic signal settings as well as optimize traffic signal timings.

The levels of service reported for the signalized and unsignalized intersections were taken from the Highway Capacity Manual 2000 (HCM) reports generated by Synchro. Descriptions of level of service are included in Appendix B. The levels of service and 95th/50th percentile queues are presented in Appendix E. Levels of service are summarized in Table 3-2, and the 95th percentile queues are summarized in Table 3-3.

Levels of Service. Below is a summary of the level of service results as shown on Table 3-2:

Intersection #1 – Elden Street/Existing Site Entrance: The unsignalized traffic movements currently operate at an acceptable LOS “B” or better during the weekday AM and PM peak hours.

Intersection #2 – Herndon Parkway/Elden Street: This signalized study intersection currently operates at an overall acceptable LOS “D” during the weekday AM and PM peak hours. The eastbound shared-thru right and the northbound right traffic movements operate at LOS “E” during the weekday AM and PM peak hours, respectively.

Intersection #3 – Herndon Parkway/Existing Site Entrance: The unsignalized traffic movements currently operate at an acceptable LOS “A” during the weekday AM and PM peak hours.

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

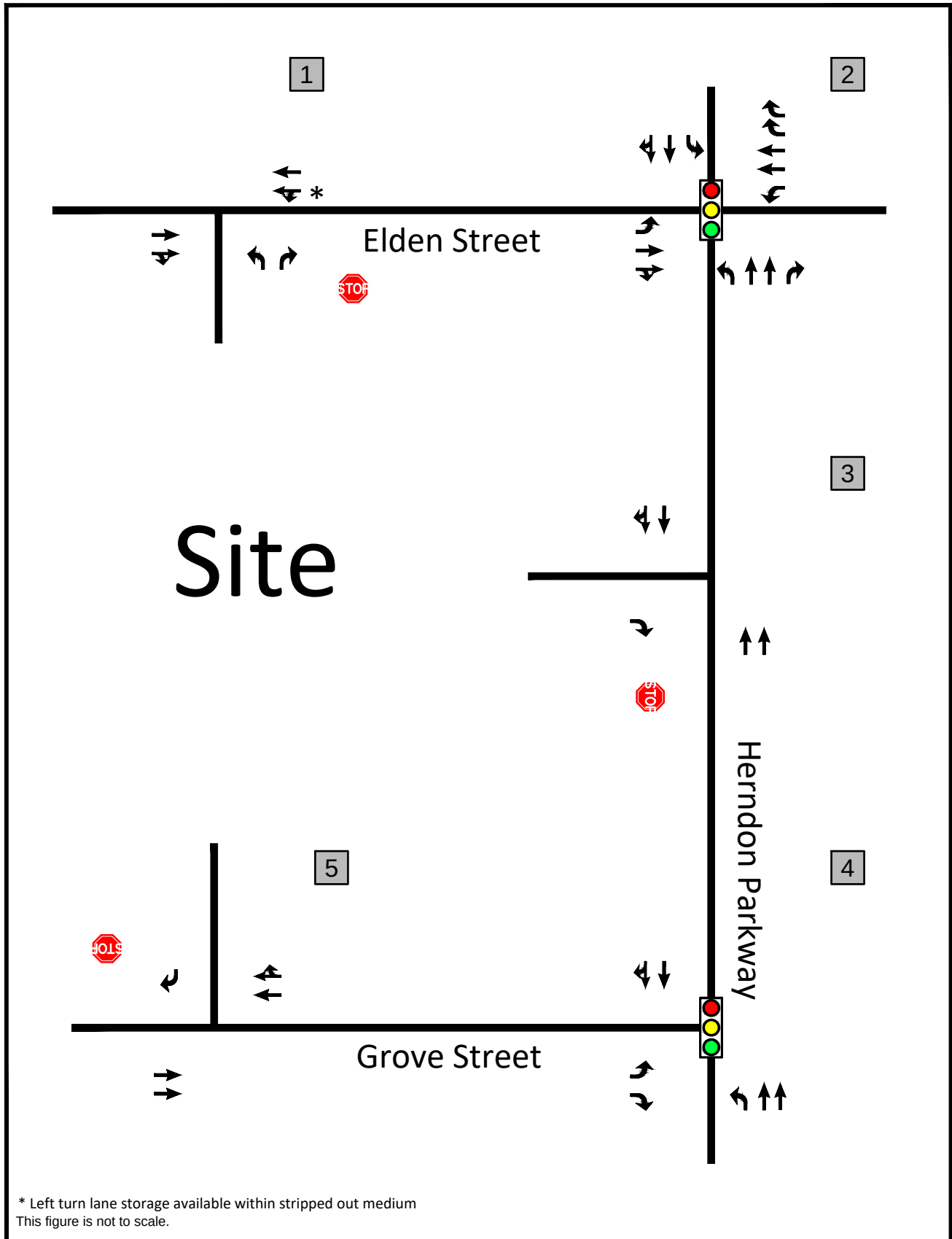


Figure 3-4
Existing Lane Use and Traffic Controls

← Represents One Travel Lane
 Signalized Intersection
 Stop Sign



NORTH

315 Elden Adaptive Reuse
Town of Herndon, Virginia



Table 3-2
315 Elden Street Adaptive Reuse
Level of Service Summary

Intersection		Operating Condition	Street Name	Approach/ Movement	Existing 2021		Background 2026		Total Future 2026		
					AM	PM	AM	PM	AM	PM	
1 Elden Street/ Site Entance		STOP	Elden Street Elden Street Site Entance	EBTR	A [0.0]	A [0.0]	NA	NA	NA	NA	
				WBT	A [0.0]	A [0.0]	NA	NA	NA	NA	
				NBLR	B [10.7]	B [12.4]	NA	NA	NA	NA	
	VDOT Widening Right-in/out only from site entance	STOP	Elden Street Elden Street Site Entance	EBTR	NA	NA	A [0.0]	A [0.0]	A [0.0]	A [0.0]	
				WBT	NA	NA	A [0.0]	A [0.0]	A [0.0]	A [0.0]	
				NBR	NA	NA	B [10.1]	B [11.2]	B [10.2]	B [11.3]	
	2 Elden Street/ Herndon Parkway	Signal	Elden Street	EBL	D (42.4)	C (31.4)	NA	NA	NA	NA	
				EBTR	E (57.3)	D (46.8)	NA	NA	NA	NA	
			Elden Street	WBL	D (38.1)	C (31.0)	NA	NA	NA	NA	
				WBT	D (44.4)	D (39.2)	NA	NA	NA	NA	
WBR				D (40.4)	C (32.5)	NA	NA	NA	NA		
NBL				B (18.0)	C (26.2)	NA	NA	NA	NA		
Herndon Parkway			NBT	C (20.4)	C (29.3)	NA	NA	NA	NA		
			NBR	B (17.7)	E (64.2)	NA	NA	NA	NA		
Herndon Parkway			SBL	B (14.1)	B (16.4)	NA	NA	NA	NA		
			SBTR	<u>B (18.4)</u>	<u>C (20.9)</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>		
Overall			D (36.5)	D (37.8)	NA	NA	NA	NA			
VDOT Widening Reconfigure existing dual WBR to single, continuous lane Add EB receiving lane on Elden Street Increase storage length at EBL Decrase storage length at WBL, NBL, NBR, and SBL		Signal	Elden Street	EBL	NA	NA	D (41.6)	C (30.9)	D (41.2)	C (30.7)	
				EBTR	NA	NA	E (57.5)	D (47.0)	E (57.3)	D (47.0)	
		Elden Street	WBL	NA	NA	D (39.0)	C (32.1)	D (38.6)	C (34.2)		
			WBT	NA	NA	D (43.1)	D (38.8)	D (43.0)	D (38.3)		
			WBR	NA	NA	D (39.4)	C (32.3)	D (39.3)	C (32.0)		
			NBL	NA	NA	B (19.1)	C (27.1)	B (19.3)	C (27.4)		
		Herndon Parkway	NBT	NA	NA	C (21.8)	C (30.3)	C (22.0)	C (30.6)		
			NBR	NA	NA	B (19.1)	E (66.8)	B (19.3)	E (67.5)		
		Herndon Parkway	SBL	NA	NA	B (15.3)	B (17.1)	B (15.5)	B (17.3)		
			SBTR	<u>NA</u>	<u>NA</u>	<u>B (19.7)</u>	<u>C (21.9)</u>	<u>B (19.9)</u>	<u>C (22.1)</u>		
		Overall		NA	NA	D (36.8)	D (38.1)	D (36.9)	D (38.1)		
3 Herndon Parkway/ Site Entance	STOP	Site Entance Herndon Parkway Herndon Parkway	EBR	A [9.1]	A [9.1]	A [9.1]	A [9.2]	A [9.2]	A [9.2]		
			NBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]		
			SBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]		
4 Herndon Parkway/ Grove Street	Signal	Grove Street	EBL	E (64.6)	D (50.6)	E (62.8)	D (50.7)	E (62.8)	D (50.7)		
			EBR	D (53.5)	D (43.0)	D (51.6)	D (42.7)	D (51.6)	D (42.6)		
		Herndon Parkway	NBL	A (2.0)	A (3.4)	A (2.4)	A (3.3)	A (2.4)	A (3.4)		
			NBT	A (1.4)	A (3.6)	A (1.7)	A (3.5)	A (1.7)	A (3.5)		
		Herndon Parkway	SBTR	<u>A (5.5)</u>	<u>A (6.9)</u>	<u>A (6.0)</u>	<u>A (6.8)</u>	<u>A (6.1)</u>	<u>A (6.8)</u>		
			Overall	A (7.6)	B (17.9)	A (7.7)	B (17.8)	A (7.7)	B (17.6)		
		5 Grove Street/ Site Entance	STOP	Grove Street Grove Street Site Entance	EBT	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
					WBTR	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]	A [0.0]
SBR	A [9.3]				A [8.6]	A [9.4]	A [8.7]	A [9.5]	A [8.7]		

Notes: (1) Numbers in parentheses () represent delay at signalized intersections in seconds per vehicle.

(2) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

(3) Roadway names in bold are considered north/south for purposes of this analysis

Table 3-3
315 Elden Street Adaptive Reuse
95th/50th Percentile Queue Summary (1)(2)(3)

Intersection	Operating Condition	Street Name	Approach/ Movement	Available Storage (ft)	Existing 2021				Background 2026				Total Future 2026			
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
					50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile	50th Percentile	95th Percentile
1 Elden Street/Site Entrance	STOP	Elden Street	EBTR	-	-	0	-	0	NA	NA	NA	NA	NA	NA	NA	NA
		Elden Street	WBTR	-	-	0	-	0	NA	NA	NA	NA	NA	NA	NA	NA
		Site Entrance	NBLR	-	-	2	-	2	NA	NA	NA	NA	NA	NA	NA	NA
	STOP	Elden Street	EBTR	-	NA	NA	NA	NA	-	0	-	0	-	0	-	0
		Elden Street	WBTR	-	NA	NA	NA	NA	-	0	-	0	-	0	-	0
		Site Entrance	NBR	-	NA	NA	NA	NA	-	1	-	2	-	3	-	2
2 Elden Street/Herndon Parkway	Signal	Elden Street	EBL	226	22	42	39	65	NA	NA	NA	NA	NA	NA	NA	NA
			EBTR	-	230	265	264	306	NA	NA	NA	NA	NA	NA	NA	NA
			WBL	443	98	132	65	97	NA	NA	NA	NA	NA	NA	NA	NA
		Elden Street	WBTR	-	145	171	220	259	NA	NA	NA	NA	NA	NA	NA	NA
			WBR	176	0	25	0	29	NA	NA	NA	NA	NA	NA	NA	NA
			NBL	213	12	34	31	68	NA	NA	NA	NA	NA	NA	NA	NA
		Herndon Parkway	NBT	-	19	41	51	88	NA	NA	NA	NA	NA	NA	NA	NA
			NBR	250	0	28	0	79	NA	NA	NA	NA	NA	NA	NA	NA
			SBL	153	96	183	71	133	NA	NA	NA	NA	NA	NA	NA	NA
		Herndon Parkway	SBTR	-	58	107	23	53	NA	NA	NA	NA	NA	NA	NA	NA
	Signal	Elden Street	EBL	275	NA	NA	NA	NA	24	43	42	70	26	46	41	70
			EBTR	-	NA	NA	NA	NA	244	283	278	325	251	290	281	329
			WBL	300	NA	NA	NA	NA	109	144	68	103	107	143	75	112
		Elden Street	WBTR	-	NA	NA	NA	NA	152	180	230	273	152	180	229	273
			WBR	-	NA	NA	NA	NA	0	47	0	55	0	47	0	55
			NBL	180	NA	NA	NA	NA	13	36	34	72	13	36	34	72
		Herndon Parkway	NBT	-	NA	NA	NA	NA	21	43	55	93	21	43	55	93
			NBR	225	NA	NA	NA	NA	0	32	0	82	0	32	0	82
			SBL	135	NA	NA	NA	NA	108	198	78	139	109	198	79	139
		Herndon Parkway	SBTR	-	NA	NA	NA	NA	65	116	25	56	66	115	26	57
3 Herndon Parkway/Site Entrance	STOP	Site Entrance	EBR	-	-	0	-	1	-	1	-	1	-	2	-	1
		Herndon Parkway	NBT	-	-	0	-	0	-	0	-	0	-	0	-	0
		Herndon Parkway	NBR	-	-	0	-	0	-	0	-	0	-	0	-	0
		Herndon Parkway	SBTR	-	-	0	-	0	-	0	-	0	-	0	-	0
4 Herndon Parkway/Grove Street	Signal	Grove Street	EBL	-	12	30	71	103	12	31	68	106	12	31	68	106
			EBR	-	0	32	72	121	0	32	58	128	0	32	59	129
		Herndon Parkway	NBL	200	0	111	11	34	36	119	11	36	36	119	12	39
			NBT	-	0	43	35	77	13	45	34	80	13	45	34	80
			SBTR	-	46	108	44	80	59	114	42	82	62	120	43	82
5 Grove Street/ Site Entrance	STOP	Grove Street	EBT	-	-	0	-	0	-	0	-	0	-	0	-	0
		Grove Street	WBTR	-	-	0	-	0	-	0	-	0	-	0	-	0
		Site Entrance	SBR	-	-	0	-	1	-	1	-	1	-	1	-	1
		Site Entrance	SBR	-	-	0	-	1	-	1	-	1	-	1	-	1

Notes (1) Turning movement queue length is based on the 50th and 95th percentile queue as reported by Synchro, Version 10.
(2) Roadway names in bold are considered north/south for purposes of this analysis
(3) Highlighted values indicate queue exceeds storage length

Intersection #4 – Herndon Parkway/Grove Street: This signalized study intersection currently operates at an overall acceptable LOS “B” or better during the weekday AM and PM peak hours. The eastbound left traffic movement operates at LOS “E” during the weekday AM peak hour.

Intersection #5 – Grove Street/Existing Site Entrance: The unsignalized traffic movements currently operate at an acceptable LOS “A” during the weekday AM and PM peak hours.

Queues. The 95th/50th percentile queues associated with existing conditions are used to establish a datum against which to compare future conditions. The 95th percentile queue is defined as the maximum back of queue with 95th percentile traffic volumes. The 95th percentile queue is not necessarily observed, it is simply based on statistical calculations. The 50th percentile queue is defined as the average queue. The results are summarized in Table 3-3 and included in Appendix E. As shown in Table 3-3, existing queues exceed the available turn lane storage at the following location:

- Intersection #2 – Herndon Parkway/Elden Street:
 - SBL during the PM peak hour (95th Percentile Condition)

This southbound left (SBL) turning movement does not carry any traffic associated with the subject site.

Section 4**ANALYSIS OF BACKGROUND FUTURE CONDITIONS WITHOUT DEVELOPMENT (2026)****TRAFFIC VOLUMES**

Methodology/Assumptions. Traffic forecasts without the proposed development in the year 2026 were derived based on a composite of existing traffic counts, reassignment of existing traffic to account for the Elden Street Widening project, the application of a regional traffic growth rate to account for regionally approved, yet unbuilt (i.e., “pipeline”) developments, and pipeline trips associated with the inherent vacancies currently realized by the existing, on-site Residence Inn Marriott hotel.

Site Traffic Reassignments. Per the scoping agreement shown in Appendix A, the Elden Street Widening Project that is depicted on Figure 2-3 is assumed to be constructed and complete for the future conditions analysis year (2026). As such, the site’s existing site entrance on Elden Street would be restricted in the future to a right-in/right-out when a raised median is constructed along Elden Street on the north side of the site. As a result, any left-ins or left-outs that were measured at this driveway under existing conditions were reassigned to the other site driveways as appropriate. The reassignment of existing site traffic is reflected on Figure 4-1. The resulting reassignment of the existing peak hour traffic volumes is shown on Figure 4-2 (=Figure 3-1 + Figure 4-1).

Regional Traffic Growth. Per the scoping agreement shown in Appendix A, a growth rate of one (1) percent compounded annually was applied to the 2021 existing traffic volumes for the through movements along Elden Street, Herndon Parkway, and Grove Street as well as applicable turning movements at the traffic signal study intersections. The increases in peak hour traffic as a result of regional traffic growth to year 2026 are summarized on Figure 4-3.

Pipeline Development. In Section 3 of this TIS, it was reported that the existing Residence Inn Marriott was operating at approximately 39.9 to 50.6 percent occupancy. For the purpose of this analysis, the field measured trip generation was compared to what ITE would estimate and the positive difference between ITE and the field count was added to the site driveways as new pipeline trips to best reflect typical hotel conditions. A summary of the hotel trip generation is shown in Table 4-1 and summarized below:

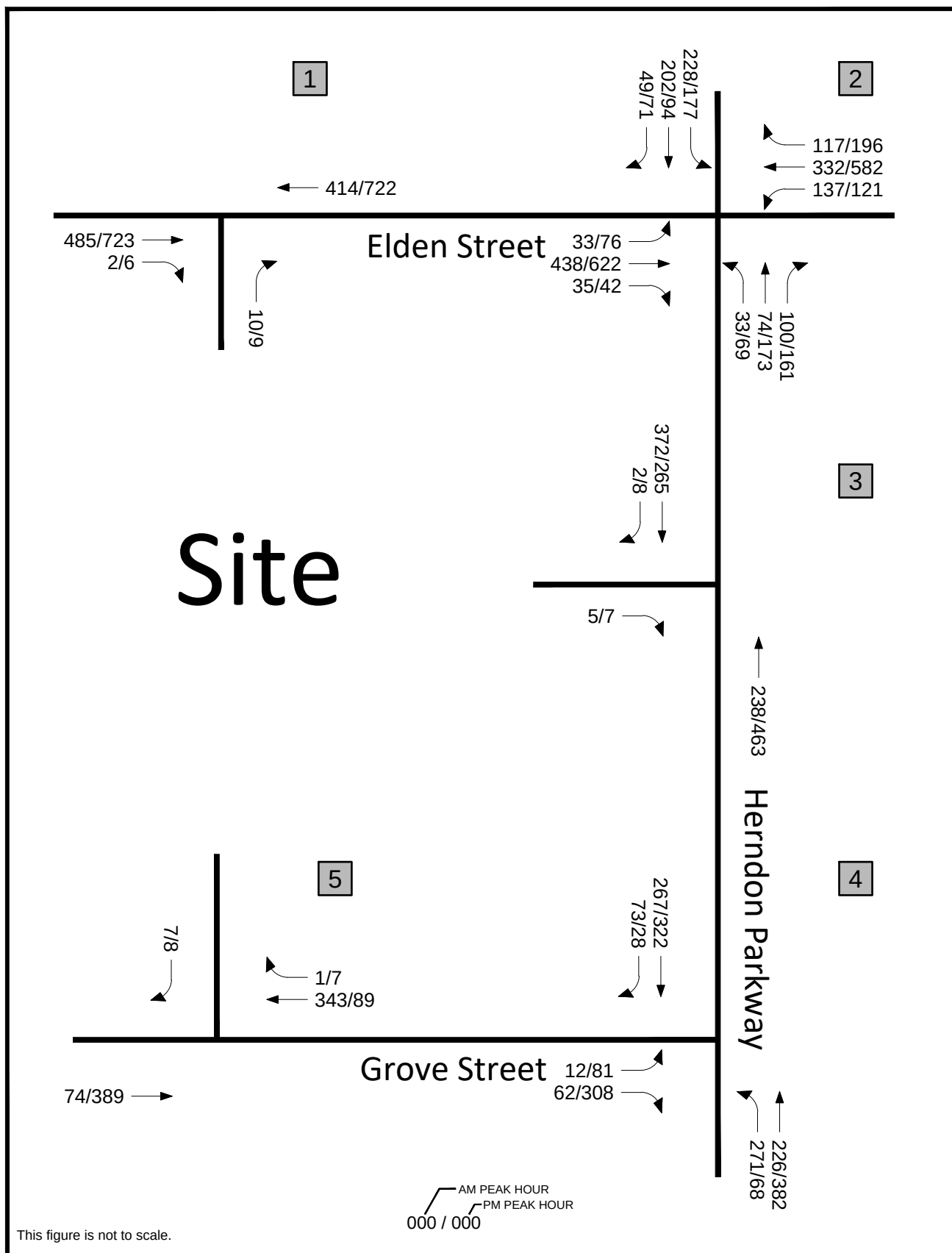
- **Field Count:** 27 AM peak hour trips (5 in, 22 out) and 45 PM peak hour trips (21 in, 24 out)
- **ITE Estimate:** 57 AM peak hour trips (30 in, 27 out) and 62 PM peak hour trips (30 in, 30 out)

Difference: ITE Estimate minus Field Count

+30 AM peak hour trips (+25 in, +5 out) and +17 PM peak hour trips (+9 in, +8 out)

The pipeline trip assignments associated with the difference between ITE and the field count are shown on Figure 4-4. The hotel trips were assigned to the road network based on existing hotel



**Figure 4-2**

Reassigned, Existing Peak Hour Vehicular Traffic Volumes
(Fig. 3-1 + Fig. 4-1)



315 Elden Adaptive Reuse
Town of Herndon, Virginia

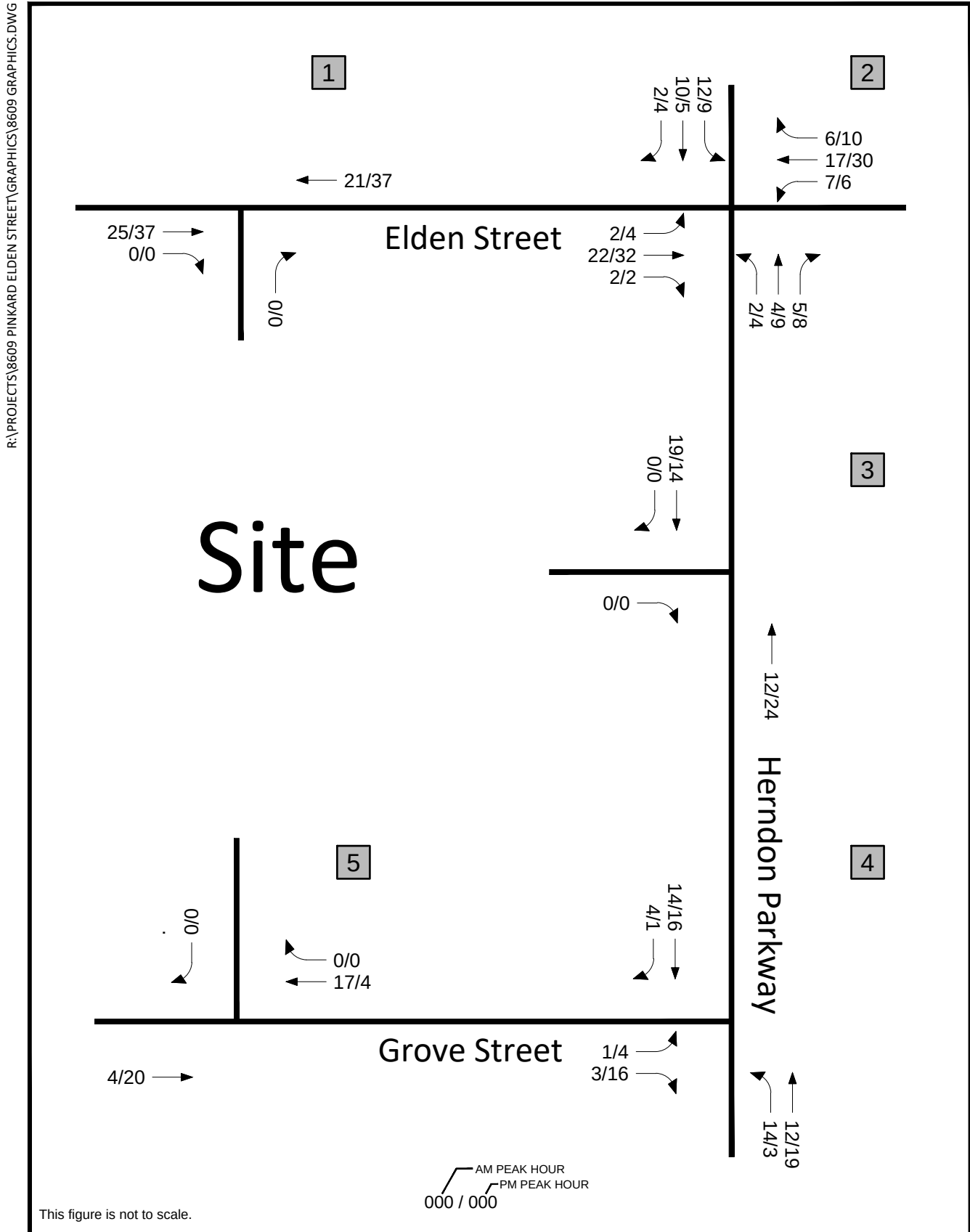


Figure 4-3
Regional Traffic Growth



315 Elden Adaptive Reuse
Town of Herndon, Virginia

Table 4-1
 315 Elden Adaptive Reuse
 Pipeline Trip Generation Summary (1) (2) (3)

Use	ITE Land Use (4)	ITE Land Use Code	Amount	Units	Weekday						
					AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street			Average Daily Trips
In	Out	Total	In	Out	Total						
Residence Inn Marriott (Based on ITE)	All Suites Hotel	311	168	Rooms	30	27	57	30	32	62	755
Residence Inn Marriott (Based on Field Count)	All Suites Hotel	Field Count (5) (6)	168	Rooms	5	22	27	21	24	45	N/A
Difference (ITE Minus Field Count)					25	5	30	9	8	17	N/A

Note(s):

- (1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 10th Edition.
- (2) The weekday AM and PM peak hours are based on the peak hour of the adjacent street.
- (3) "N/A" = Not Available.
- (4) An "All Suites Hotel" is a place of lodging that provides sleeping accommodations, a small restaurant and lounge, and small amounts of meeting space. Each suite includes a sitting room and separate bedroom; limited kitchen facilities are provided within the suite.
- (5) Field count collected at the hotel's site entrances on Thursday, September 16, 2021 with a recount at one entrance occurring on Tuesday, September 21, 2021.
- (6) The hotel occupancy during the period of the field count ranged from 39.9 to 50.6 percent occupancy.

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

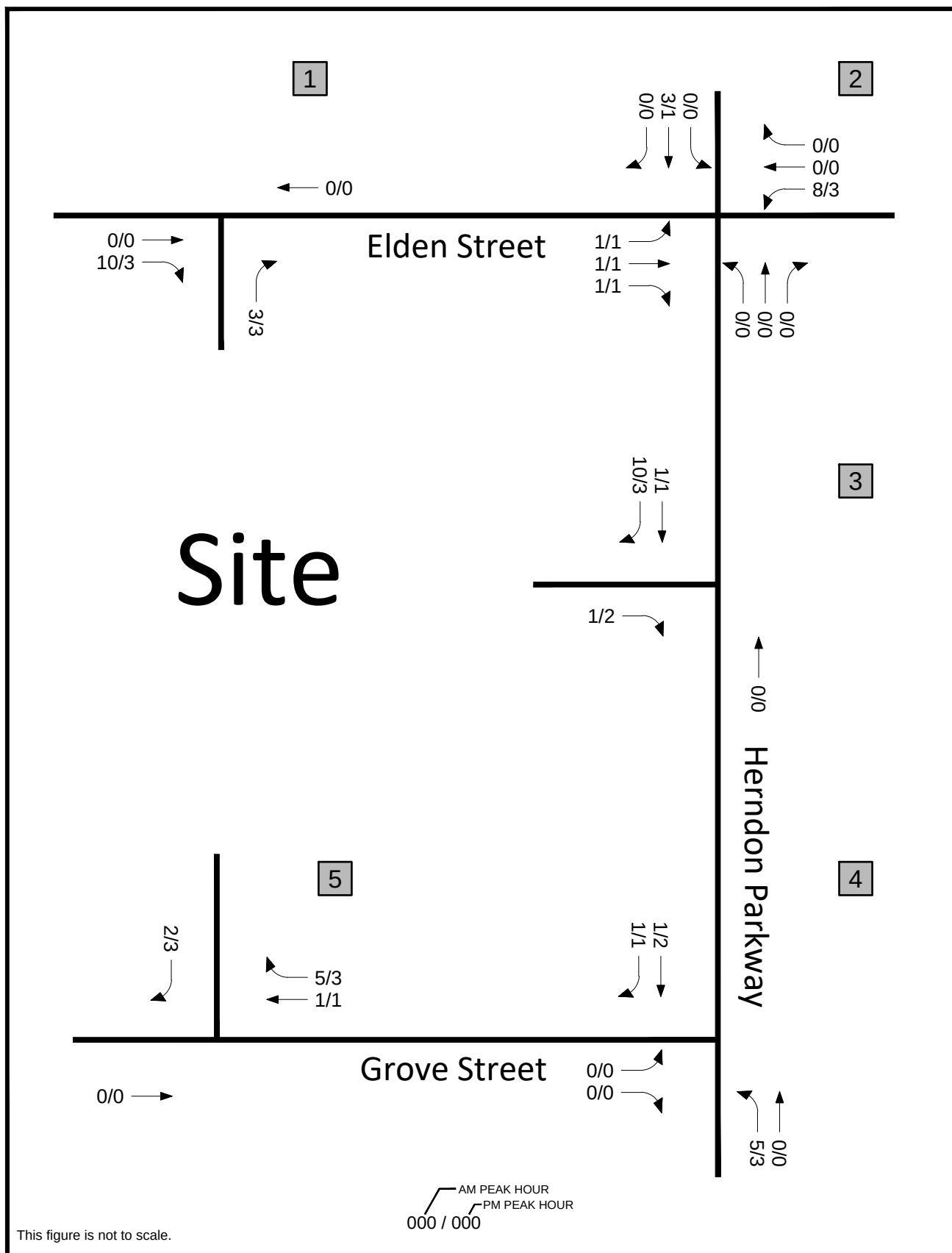


Figure 4-4
Pipeline (Hotel) Trip Assignments



315 Elden Adaptive Reuse
Town of Herndon, Virginia



travel patterns and applicable reassignments associated with the Elden Street Widening Project. No other pipeline developments were identified within the immediate vicinity of the study area.

BACKGROUND FUTURE TRAFFIC FORECASTS

The resultant peak hour traffic forecasts for year 2026 conditions without the development are shown on Figure 4-5. These volumes are a composite of the resulting reassigned existing peak hour traffic volumes shown in Figure 4-2, the regional traffic growth traffic forecasts shown on Figure 4-3, and the pipeline site trip assignments shown on Figure 4-4.

FUTURE LANE USE AND TRAFFIC CONTROL

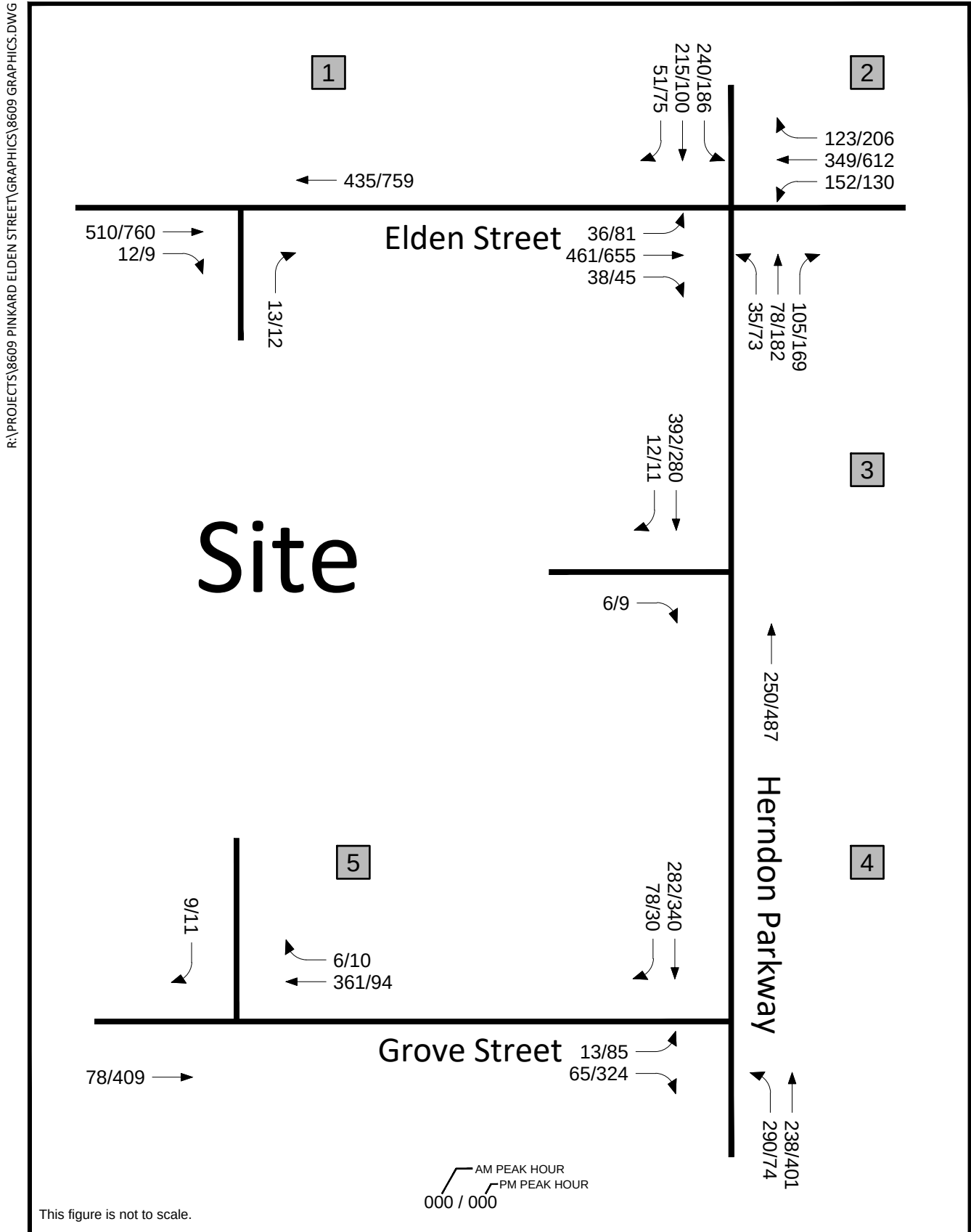
As discussed previously and per the scoping agreement shown in Appendix A, the Elden Street Widening Project that is depicted on Figure 2-3 is assumed to be constructed and complete for the future conditions analysis year (2026). The corresponding future lane use and traffic controls that are based on these future improvements and evaluated herein for the future year 2026 conditions is shown on Figure 4-6.

OPERATIONAL ANALYSIS

Capacity analyses without the Project were performed for the study intersections using the future lane use and traffic controls shown on Figure 4-5, the future traffic forecasts without the development shown on Figure 4-4, and the observed pedestrian/bicycle counts. Levels of service are summarized in Table 3-2, and the 95th/50th percentile queues are summarized in Table 3-3. The levels of service and the 95th/50th percentile queue results are presented in Appendix F.

Levels of Service. With the addition of the forecasted regional background growth and pipeline development trips to the existing reassigned traffic volumes associated with the Elden Street Widening project, certain locations would experience negligible to only minor increases in delay. Overall, the study intersections would operate at the same level of service as existing conditions where all the site entrances would continue to operate at acceptable LOS “B” or better and the traffic signal study intersections would continue to operate at an overall acceptable LOS “D” or better.

Queues. The results are summarized in Table 3-3 and included in Appendix F. As shown in Table 3-3, certain existing turn bays would have reduced vehicle storage as result of Elden Street Widening project that will shorten certain turn lanes. Overall, future conditions would experience increase vehicle queues but would continue to fall within the available turn lane storage provided. The exception is the southbound left-turn bay at the Elden Street/Herndon Parkway intersection (study intersection #2). Consistent with existing conditions, the future queues at this turning movement would continue to exceed available turn lane storage. This southbound left traffic movement does not carry any traffic associated with the subject site.

**Figure 4-5**

2026 Background Future Traffic Forecasts (without Proposed Development)
(Fig. 4-2 + Fig. 4-3 + Fig. 4-4)



315 Elden Adaptive Reuse
Town of Herndon, Virginia

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG

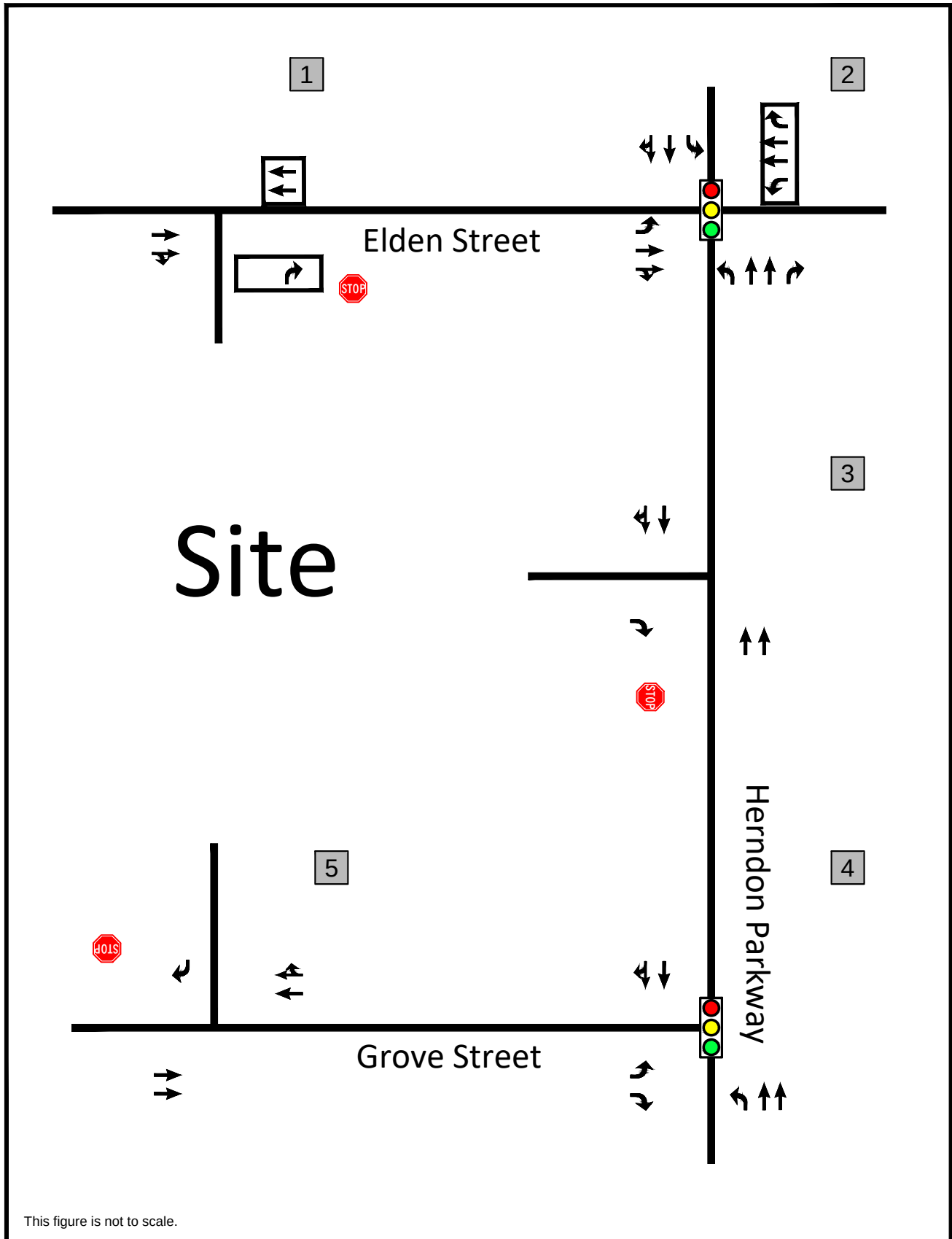


Figure 4-6
Future Lane Use and Traffic Controls

- Modified as a Result of Elden Street Widening Project
- Represents One Travel Lane
- Signalized Intersection
- Stop Sign

NORTH

315 Elden Adaptive Reuse
Town of Herndon, Virginia



Section 5

SITE TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

OVERVIEW

The Applicant has filed a Zoning Map Amendment application that would convert the existing 168 room hotel use to a residential community with up to 174 multi-family residential dwellings units (DUs) of which approximately 50 percent will be designated as work force housing. All of the multi-family units will be located within the existing hotel buildings. A portion of the ancillary hotel space (e.g. office, meeting areas, etc.) would be converted into new dwelling units to increase the site's unit count above the existing 168 hotel rooms.

SITE TRIP GENERATION ANALYSIS

The number of trips that would be generated by the proposed development were estimated based on the ITE 10th Edition, Trip Generation Manual using the peak hour of the adjacent street rates/equations, where applicable. Land Use Code 220 [Multifamily Housing (Low-Rise)] was utilized for the residential use with the number of dwelling units as the independent variable. Further, a transportation demand management (TDM) trip reduction that is supported by the project's affordability, unit mix, proximity to transit/non-auto facilities was not applied for a worst-case scenario and to provide an overly conservative analysis. The trip generation for the proposed development is summarized on Table 5-1 and described below:

- 81 weekday AM peak hour trips (19 inbound, 62 outbound)
- 97 weekday PM peak hour trips (61 inbound, 36 outbound)
- 1,275 average daily trips

In comparison to the existing hotel use, and absent any consideration of trip reductions associated with proffered TDM commitments, the subject proposal according to ITE trip generation estimates would add the following net new trips to the adjacent road network over the existing use:

- 24 more weekday AM peak hour trips (11 fewer inbound, 35 more outbound)
- 35 more weekday PM peak hour trips (31 more inbound, 4 more outbound)
- 520 more average daily trips

SITE ACCESS

Vehicular access to the site would continue to be provided via the site's three (3) existing commercial entrances: one (1) each on Elden Street, Herndon Parkway, and Grove Street. The entrances on Herndon Parkway and Grove Street are currently and will remain right-in/right-out driveways. The entrance on Elden Street currently acts as a full-movement entrance but will be

Table 5-1
315 Elden Adaptive Reuse
Trip Generation Analysis **(1) (2)**

Use	ITE Land Use (3) (4)	Land Use Code	Amount	Units (5)	Weekday						
					AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street			Average Daily Trips
					In	Out	Total	In	Out	Total	
EXISTING: Residence Inn Marriott	All Suites Hotel	311	168	Rooms	30	27	57	30	32	62	755
PROPOSED: Apartments	Multifamily Housing (Low-Rise)	220	174	DU	19	62	81	61	36	97	1,275
Difference (Proposed Minus Existing)					(11)	35	24	31	4	35	520

Note(s):

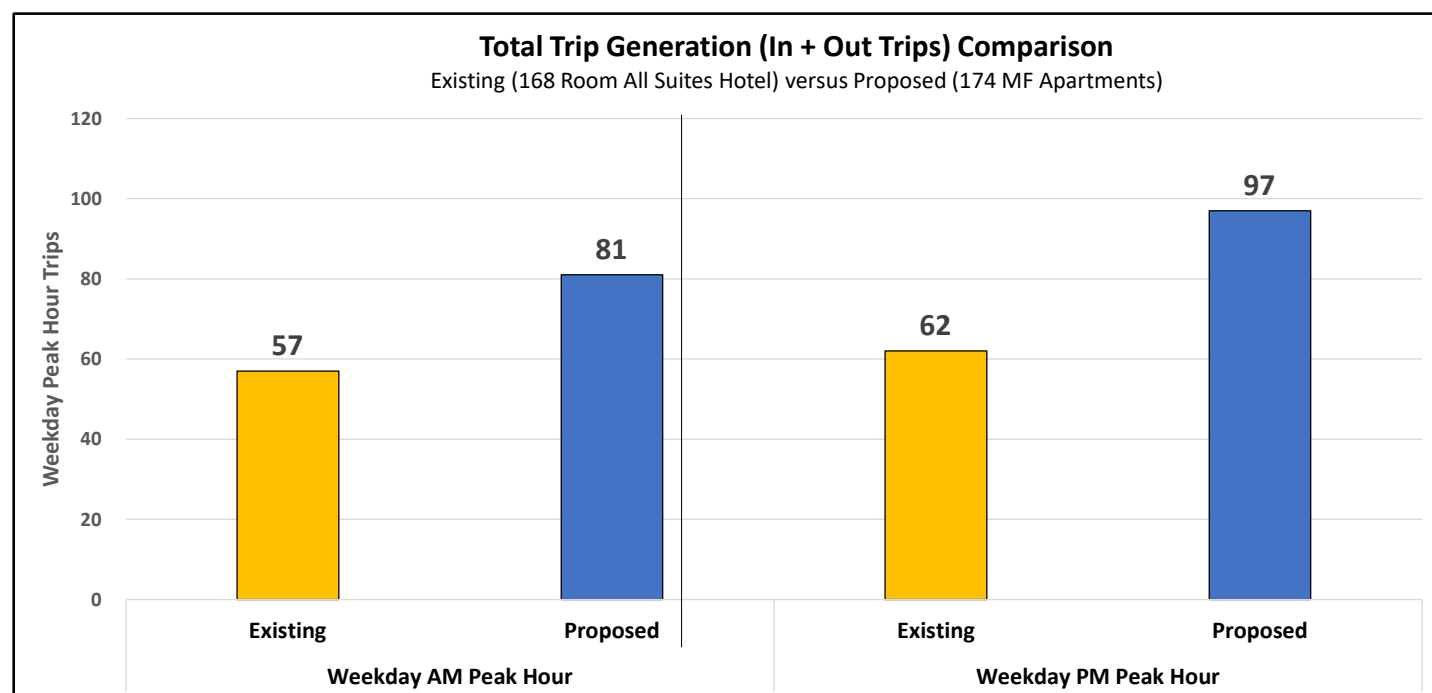
(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation, 10th Edition.

(2) The weekday AM and PM peak hours are based on the peak hour of the adjacent street.

(3) An "All Suites Hotel" is a place of lodging that provides sleeping accommodations, a small restaurant and lounge, and small amounts of meeting space. Each suite includes a sitting room and separate bedroom; limited kitchen facilities are provided within the suite.

(4) "Multifamily Housing (Low-Rise)" includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors).

(5) DU = Dwelling Unit



restricted to a right-in/right-out upon completion of the Elden Street widening improvement project that is scheduled to go under construction in 2026. For planning purposes, the traffic impact study evaluates a single future study year in 2026 that assumes the Elden Street widening project is complete.

HOTEL SITE TRIPS REMOVED

The hotel site trips reflected on Figure 4-5 were removed from the study intersections as reflected on Figure 5-1.

SITE TRIP PERCENT DISTRIBUTION AND ASSIGNMENTS

Distributions associated with the proposed Project were developed based on the location of the site, accessibility and proximity to regional roadways, local knowledge, and engineering judgment. As a result, below are the distributions for the new site trips that were agreed to with Town of Herndon staff during the scoping process (see Appendix A):

- To/From the west on Elden Street and Grove Street: 25%
- To/From the north on Herndon Parkway: 10%
- To/From the east on Elden Street: 35%
- To/From the south on Herndon Parkway: 30%

The new vehicle peak hour trips summarized in Table 5-1 were assigned to the public roadway network according to the directional distributions summarized above with consideration of the hotel's existing driveway utilization. The resulting site trip assignments and percent distributions are depicted on Figure 5-2.

INFLUENCE AREA

Figure 5-3 reflects the net new trips added to the study intersections which is derived by combining the new residential trips shown on Figure 5-2 and the removed hotel trips shown on Figure 5-1. As shown on Figure 5-3, the subject proposal would add the following net new trips beyond the study intersections:

- To/From the south on Herndon Parkway:
 - 13 AM / 2 PM trips to the south
 - 0 AM / 8 PM trips from the south
- To/From the west on Grove Street:
 - 0 AM / -1 PM trips to the west
 - 0 AM / 0 PM trips from the west



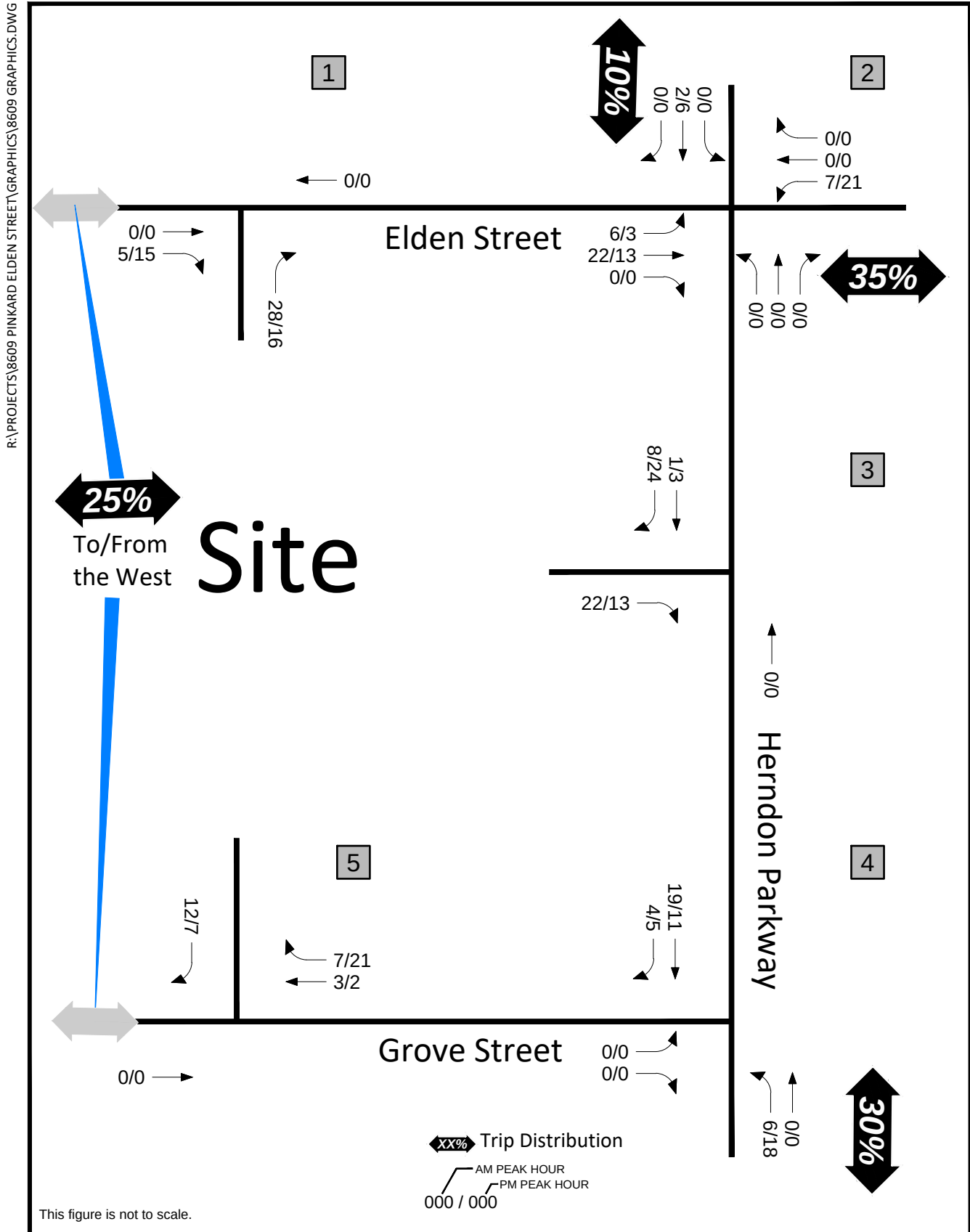


Figure 5-2

New Site Trip Assignments and Percent Distributions



315 Elden Adaptive Reuse
Town of Herndon, Virginia



- To/From the west on Elden Street:
 - 0 AM / 0 PM trips to the west
 - -7 AM / 6 PM trips from the west
- To/From the north on Herndon Parkway:
 - -1 AM / 3 PM trips to the west
 - 3 AM / 0 PM trips from the west
- To/From the east on Elden Street:
 - 15 AM / 8 PM trips to the west
 - -2 AM / 13 PM trips from the west

The minimal net new additional trips added to the area road network would result in negligible traffic impacts beyond the evaluated study intersections.

Section 6

ANALYSIS OF FUTURE CONDITIONS WITH DEVELOPMENT (2026)

TOTAL FUTURE TRAFFIC FORECASTS

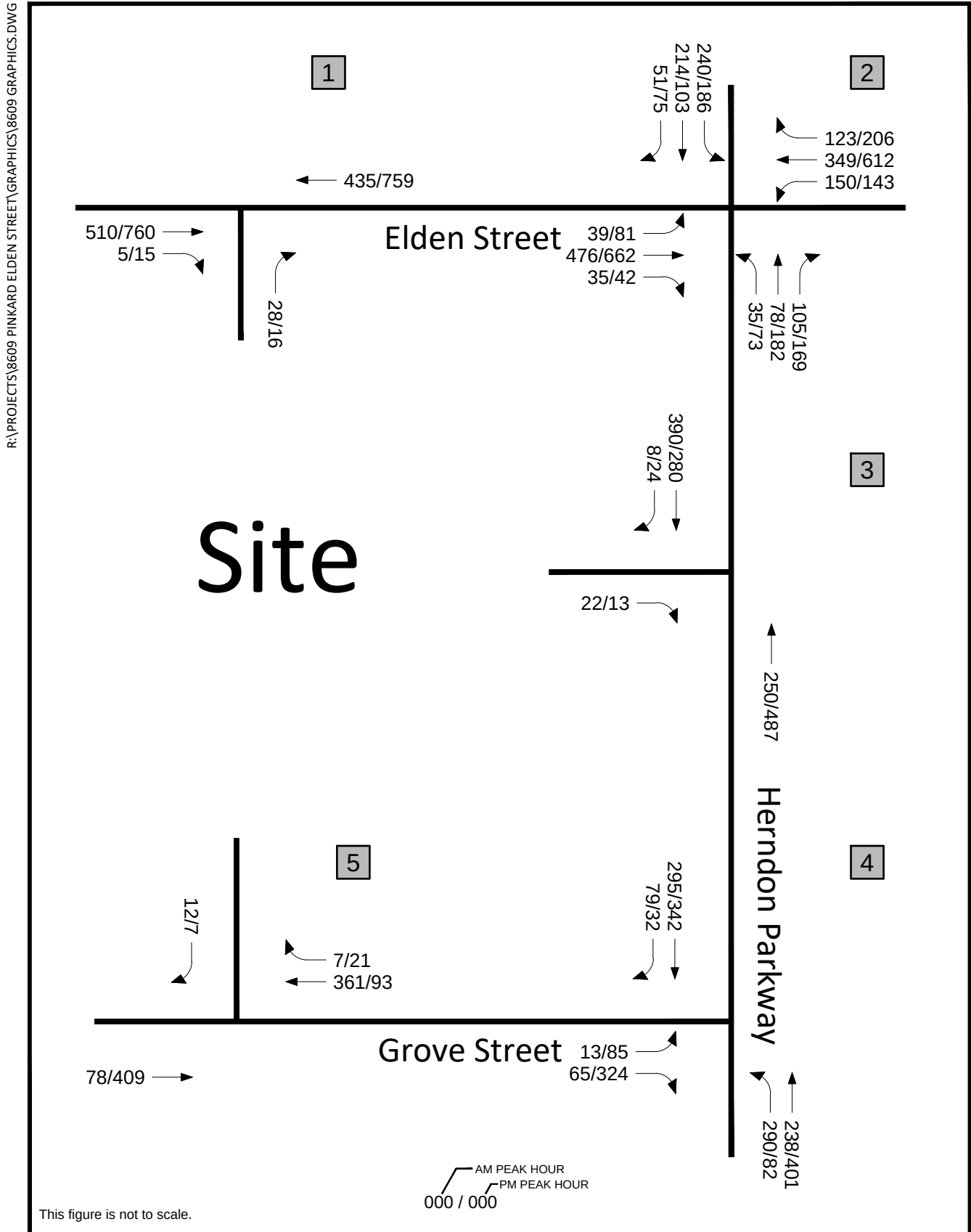
The total future traffic forecasts were developed by combining the 2026 Background Future Traffic Forecasts shown on Figure 4-5, the removed hotel trips shown on Figure 5-1, and the site trip assignments shown on Figure 5-2. The resulting total future traffic forecasts are provided on Figure 6-1.

TOTAL FUTURE OPERATIONAL ANALYSIS

Capacity analyses with the Project were performed for the study intersections using the future lane use and traffic controls shown on Figure 4-6 and the total future traffic forecasts shown on Figure 6-1. Levels of service are summarized in Table 3-2, and the 95th/50th percentile queues are summarized in Table 3-3. The levels of service and the 95th/50th-percentile queue results are presented in Appendix G.

Levels of Service. Adding the forecasted new site trips to the background future traffic volumes while removing the trips associated with the existing hotel use would add only minor increases in delay, however the levels of service in future conditions with development (2026) would remain generally consistent with existing (2026) conditions and background future conditions without the development. Overall, the study intersections would operate at the same level of service as future conditions without the development where all the site entrances would continue to operate at acceptable LOS “B” or better and the traffic signal study intersections would continue to operate at an overall acceptable LOS “D” or better.

Queues. The results are summarized in Table 3-3 and included in Appendix G. As shown in Table 3-3, the total future vehicle queues would continue to fall within the available turn lane storage provided, consistent with background future conditions without the development. The exception is the southbound left-turn bay at the Elden Street/Herndon Parkway intersection (study intersection #2). Consistent again with existing and background future conditions, the future queues at this turning movement would continue to exceed available turn lane storage. This southbound left traffic movement does not carry any traffic associated with the subject site.

**Figure 6-1**

2026 Total Future Traffic Forecasts
(Fig. 4-5 + Fig. 5-1 + Fig. 5-2)



315 Elden Adaptive Reuse
Town of Herndon, Virginia



Section 7

CONCLUSIONS

Based on this assessment, the traffic generated by the proposed new residential development will not adversely impact nearby intersections or the site's existing site entrances. The overall conclusions are as follows:

1. Area roadways continue to realize lower traffic volumes when compared to pre-Covid conditions from 2019 and earlier. However, the comparative analysis of future conditions with and without the proposed project conclude that the conversion of the existing hotel to residential would not have an appreciable impact to the existing site entrances or area study intersections.
2. Under existing conditions, all of the signalized study intersections currently operate at overall acceptable levels of service (LOS) "D" or better during the weekday peak hours. The traffic movements at the unsignalized site entrances operate at an acceptable LOS "B" or better during the weekday peak hours. The existing queues exceed the available turn lane storage at the following location:

- Intersection #2 – Herndon Parkway/Elden Street:
 - SBL during the PM peak hour (95th Percentile Condition)

This southbound left (SBL) turning movement does not carry any traffic associated with the subject site.

3. Roadway intersections within the study area would experience increases in traffic as a result of background regional traffic growth and future pipeline traffic associated with the existing hotel.
4. Under 2026 background future conditions that considers the Elden Street Widening project, all the study intersections would operate consistent with existing conditions with only minor increases in vehicle delay and vehicle queues.
5. According to ITE and absent any trip reduction measures (e.g. TDM), the proposed conversion from 168 hotel rooms to 174 multifamily residential units would generate the following net new trips to the area road network:
 - 24 more weekday AM peak hour trips (11 fewer inbound, 35 more outbound)
 - 35 more weekday PM peak hour trips (31 more inbound, 4 more outbound)
 - 520 more average daily trips
6. No trip reductions were applied to provide an overly conservative traffic impact analysis. Proffered Transportation Demand Management (TDM) elements supported by the site's

affordability, unit mix, and proximity to transit/bicycle-pedestrian facilities would further reduce the proposals site traffic impacts.

7. Under 2026 total future conditions (with the development), all the study intersections would generally operate consistent to future conditions without the proposed development. All of the signalized study intersections would continue to operate at overall acceptable levels of service (LOS) "D" or better during the weekday peak hours. The traffic movements at the unsignalized site entrances would continue to operate at an acceptable LOS "B" or better during the weekday peak hours. Consistent with existing and background future conditions with the development, vehicle queues would exceed the available turn lane storage at the southbound left at the Herndon Parkway/Elden Street intersection. This southbound left traffic movement does not carry any traffic associated with the subject site.

APPENDIX A
SIGNED SCOPE OF WORK DOCUMENT



September 29, 2021
Revised October 6, 2021

VIA ELECTRONIC DELIVERY

Bryce Perry
Deputy Director of Community Development
Town of Herndon
777 Lynn Street
Herndon, Virginia 20170-4602

RE: 315 Elden Adaptive Reuse
Traffic Impact Study;
Town of Herndon, Virginia

Dear Mr. Perry,

The purpose of this letter is to summarize a traffic impact study (TIS) scoping meeting that is associated with the proposed conversion from an existing hotel to a multifamily residential use in the Town of Herndon.

Meeting Date/Time: Wednesday, October 6, 2021/11 AM

Meeting Location: WebEx Virtual Meeting

Meeting Attendees: Bryce Perry, Town of Herndon
Lisa Gilleran, Town of Herndon
David Stromberg, Town of Herndon
Christopher Garcia, Town of Herndon
Eric Asher, The Pinkard Group
Kevin Fellin, Wells+Associates
Ken Wire, Wire Gill LLP
Faheem Darab, Wire Gill LLP

Applicant: Elden Street Owner, LLC

Site Location: The property is located at the southwest quadrant of the Elden Street/Herndon Parkway intersection at 315 Elden Street (**see ATTACHMENT I**). The property is also identified as **Parcel # 017-1 ((02)) 0007**. The 6.48-acre property is currently occupied by the Residence Inn Marriott that operates as extended stay hotel with “apartment-inspired suites” that feature fully equipped kitchens and practical home accommodations and leisure (e.g pool and sport court). The existing hotel is approximately 121,441 square feet (SF) and comprised of multiple two-story/garden style buildings with a total of 168 keys (hotel rooms).

Proposal: The subject proposal is seeking to submit a Zoning Map Amendment application that would convert the existing hotel use to a residential community with up to 174 multi-family residential dwellings units (DUs) of which approximately 50 percent will be designated as work force housing. All of the multi-family units will be located within the existing hotel buildings.

With up to 174 DUs, the project would yield the following unit mix:

- ±30 efficiency/studios units (17.2%)
- ±98 1-BR units (56.3%)
- ±46 2-BR units (26.4%)

The proposed zoning district will be Planned Development – Urban Residential (PD-UR). A portion of the ancillary hotel space (e.g. office, meeting areas, etc.) would be converted into new dwelling units to increase the site’s unit count above the existing 168 hotel rooms.

Vehicular Access: Vehicular access to the site would continue to be provided via the site’s three (3) existing commercial entrances: one (1) each on Elden Street, Herndon Parkway, and Grove Street. The entrances on Herndon Parkway and Grove Street are currently and will remain right-in/right-out driveways. The entrance on Elden Street currently acts as a full-movement entrance but will be restricted to a right-in/right-out upon completion of the Elden Street widening improvement project that is scheduled to go under construction in 2026. For planning purposes, the traffic impact study will evaluate a single future study year in 2026 that assumes the Elden Street widening project is complete.

The scope presented below is based on our review of the project and recent meeting with yourself and Town of Herndon staff.

TRAFFIC IMPACT STUDY SCOPE

A. Study Period(s) to be Addressed in the Traffic Impact Study

- Existing Year: 2021
- Background Future Study Year (without proposal): 2026
 - *As applicable, the existing peak hour site driveway volumes will be adjusted to reflect the Institute of Transportation Engineer’s (ITE, 10th Edition) trip generation estimates based on an “All Suites Hotel” (LUC 311). Any change in driveway trips will be reflected at the off-site study intersections.*
- Total Future Study Year (with proposal): 2026
 - *The existing peak hour driveway volumes will be removed from the study network and replaced with the proposed site trips as generated by ITE “Multifamily Housing (Low-Rise)” (LUC 220).*

B. Trip Generation

The trip generation estimates for the existing and proposed uses are shown in **ATTACHMENT II**. No trip adjustment factors are assumed for this traffic impact study.

C. Percent Trip Distribution (see ATTACHMENT I)

The site trip assignments for the proposed use will be assigned to the public road network based on the following percent distribution:

- To/From the west on Elden Street and Grove Street: 25%
- To/From the north on Herndon Parkway: 10%
- To/From the east on Elden Street: 35%
- To/From the south on Herndon Parkway: 30%

D. Study Intersections (see ATTACHMENT I)

1. Elden Street/Existing Site Entrance
2. Herndon Parkway/Elden Street
3. Herndon Parkway/Existing Site Entrance
4. Herndon Parkway/Grove Street
5. Grove Street/Existing Site Entrance

Peak period traffic counts were collected on a typical weekday (Tuesday, Wednesday, or Thursday) in September 2021 from 6 AM to 9 AM and 4 PM to 7 PM when public schools were in full-day session. The traffic impact study will document that the traffic counts were collected during the on-going, worldwide COVID-19 pandemic. These counts will also be compared to any available nearby traffic counts that were collected pre-pandemic.

E. Use of the current Highway Capacity Software (HCS) version or other software

The Synchro capacity analysis software (Version 10) will be used to analyze the aforementioned intersections. If the analysis indicates volumes exceeding capacity, SimTraffic will be used to calculate queueing. Existing and future conditions without and with the project will be included for comparison purposes.

F. Currently Programmed or Planned Transportation Improvements (see ATTACHMENT III)

The Elden Street widening plan will be included for the analysis of future conditions.

G. Critical Points for the Traffic

The study intersections will include two (2) off-site traffic signals proximate to the site and the future widening of Elden Street.

H. Other Developments nearby which should be considered in the Traffic Impact Study

- The existing measured on-site hotel driveway trips will be increased for future background conditions (without proposed development) in accordance with applicable ITE trip generation estimates.
- There are no other future off-site developments to be considered in the immediate vicinity of the site.
- A one (1.0) percent growth rate per year will be applied to non-fixed traffic movements at the subject intersections.

I. Special Considerations

- Traffic signal timing information has been requested and received for the existing signals at Herndon Parkway/Elden Street and Herndon Parkway/Grove Street.
- The traffic impact study will recommend mitigation for those locations that result in a degraded LOS by a letter grade when compared to future conditions without the proposed development.
- The traffic impact study will discuss relative impacts to off-site intersections located outside of the study area intersections.

Feel free to call or email me at 703-676-3652 or krfellin@wellsandassociates.com with any questions and/or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin R. Fellin', with a stylized flourish at the end.

Kevin R. Fellin, P.E.
Principal

R:\PROJECTS\8609 PINKARD ELDEN STREET\GRAPHICS\8609 GRAPHICS.DWG



Site Location/Study Intersections/
Site Trip Distributions

- Site Location
- # Study Intersections
- XX% Trip Distribution



NORTH

Pinkard Elden Street
Town of Herndon, Virginia

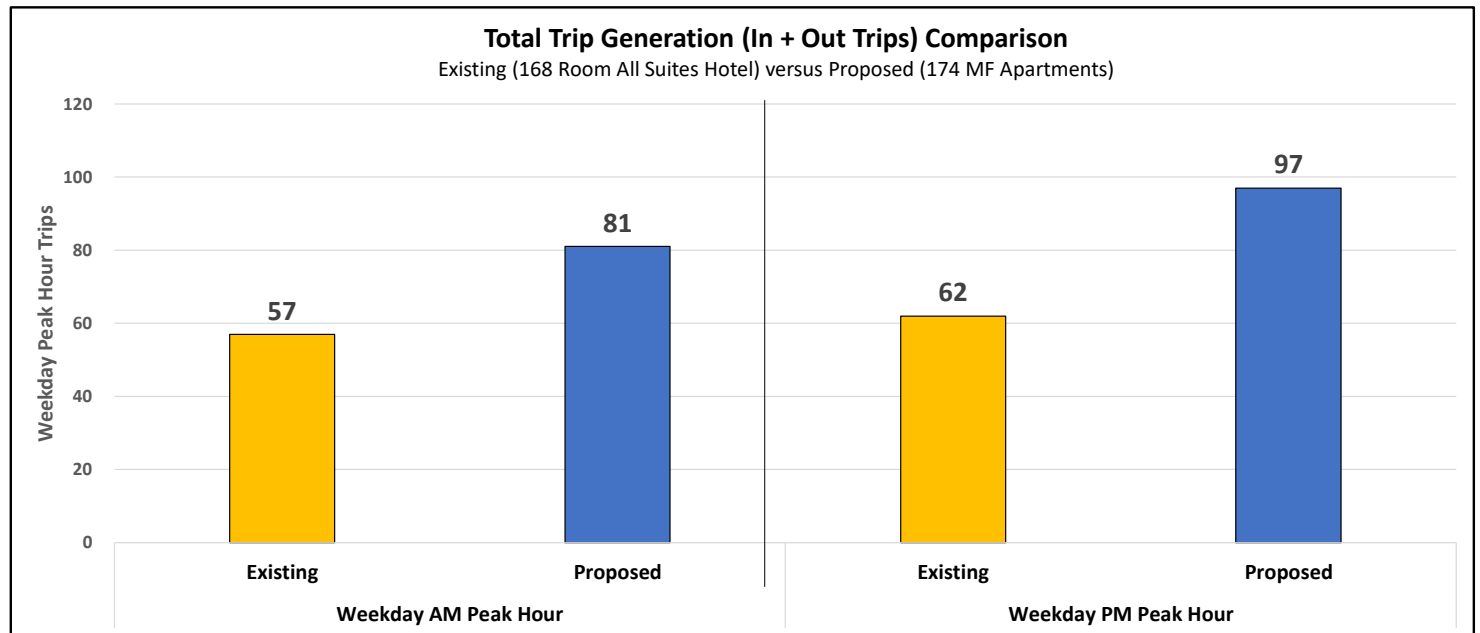


Table 1
315 Elden Adaptive Reuse
Trip Generation Analysis (1) (2)

Use	ITE Land Use	Land Use Code	Amount	Units (5)	Weekday AM Peak Hour of Adjacent Street			Weekday PM Peak Hour of Adjacent Street			Weekday Average Daily Trips
					In	Out	Total	In	Out	Total	
EXISTING: Residence Inn Marriott	All Suites Hotel (3)	311	168	Rooms	30	27	57	30	32	62	755
PROPOSED: Apartments	Multifamily Housing (Low-Rise) (4)	220	174	DU	19	62	81	61	36	97	1,275
PROPOSED MINUS EXISTING <i>Percent Difference</i>					(11) -37%	35 130%	24 42%	31 103%	4 13%	35 56%	520 69%

Note(s):

- (1) Trip generation based on the Institute of Transportation Engineers' Trip Generation, 10th Edition.
 (2) The weekday AM and PM peak hours are based on the peak hour of the adjacent street.
 (3) An "All Suites Hotel" is a place of lodging that provides sleeping accommodations, a small restaurant and lounge, and small amounts of meeting space. Each suite includes a sitting room and separate bedroom; limited kitchen facilities are provided within the suite.
 (4) "Multifamily Housing (Low-Rise)" includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors).
 (5) DU = Dwelling Unit



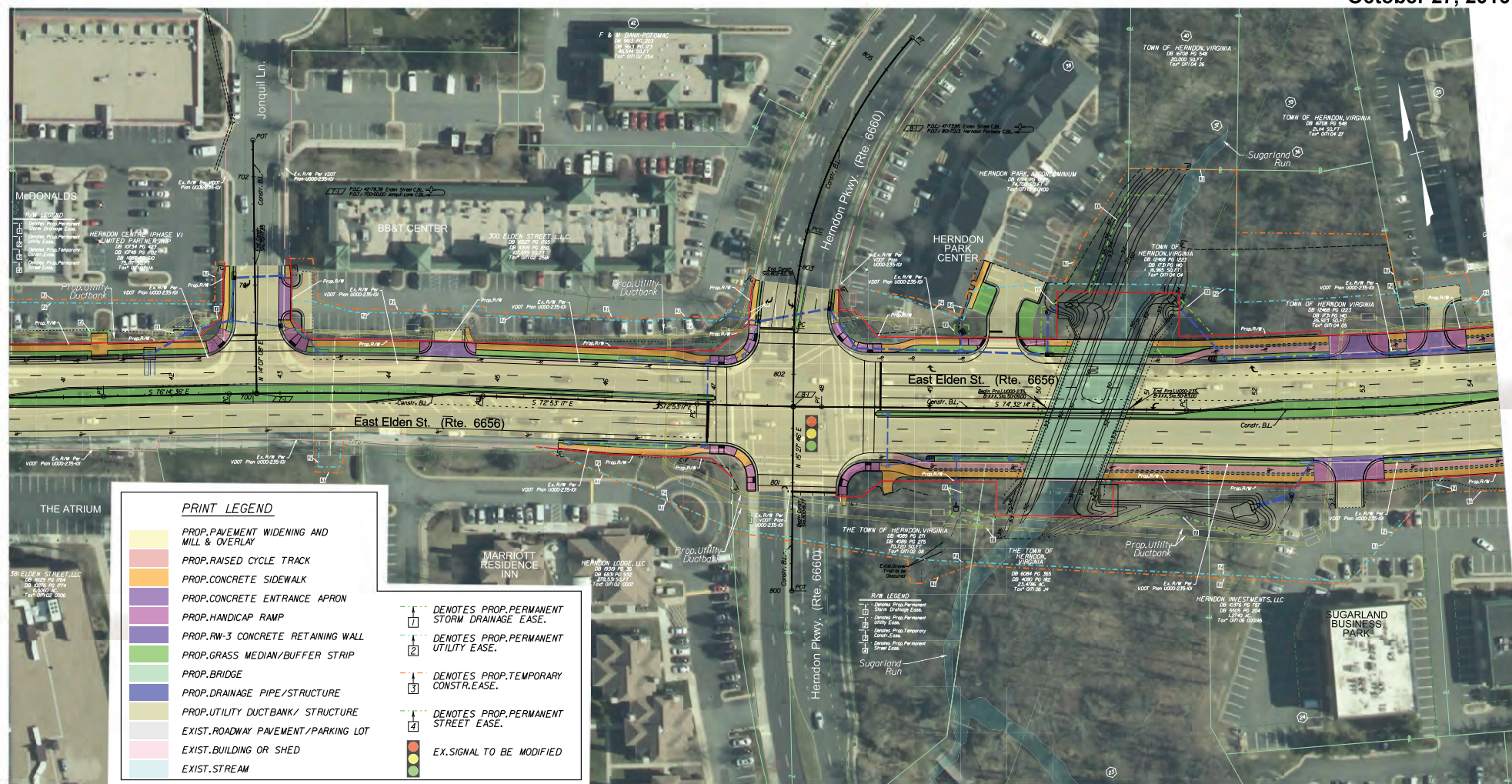


East Elden Street Widening Project - Town of Herndon

VDOT Project: U000-235-110 - Design Public Hearing - UPC 50100

4 of 5

October 27, 2016



APPENDIX B

LEVELS OF SERVICE DESCRIPTIONS

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle for a 15-min analysis period. The criteria are given in Exhibit 16-2. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Exhibit 16-2. Level-of-Service Criteria for Signalized Intersections

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Table 17-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. . . .

Table 17-2. Level of Service Criteria for TWSC Intersections

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. To remain consistent with the AWSC intersection analysis procedure described later in this chapter, a total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The proposed level of service criteria for TWSC intersections are somewhat different from the criteria used in Chapter 16 for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. . . .

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

Source: Highway Capacity Manual, 2000. Transportation Research Board, National Research Council

APPENDIX C

TRAFFIC SIGNAL TIMING SHEETS

Local 19

HP @ Elden (East)

Page 1

Sec Code-4096

Phase 1-8	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Initial	5.0	8.0	5.0	5.0	5.0	8.0	5.0	5.0
Passage	2.5	5.0	2.0	2.0	2.0	2.5	2.0	2.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk	0.0	7.0	0.0	7.0	0.0	7.0	0.0	7.0
Ped Clearance	0.0	22.0	0.0	29.0	0.0	23.0	0.0	22.0
Max 1	25.0	65.0	35.0	60.0	20.0	65.0	35.0	60.0
Max 2	25.0	45.0	35.0	50.0	20.0	45.0	15.0	50.0
Max Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Auto Max Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Max Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time before Reduce	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to Reduce	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Gap	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Max Variable Init	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0

Last Car Passage
Flash DW thru Yellow

Recall Phase
On

Controller Seq
Lead/Lag Seq Barriers

Dual Ring
On

Phase 1-8	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Phases Used	ON	ON	ON	ON	ON	ON	ON	ON
Memory On/Off	off	off	off	off	off	off	off	off
Extendable Recall	off	ON	off	off	off	ON	off	off
Max Recall	off	off	off	off	off	off	off	off
Ped Recall	off	off	off	off	off	off	off	off
Call Phase Not Act 1	off	off	off	off	off	off	off	off
Call Phase Not Act 2	off	off	off	off	off	off	off	off
Flashing Walk	off	off	off	off	off	off	off	off
Soft Recall	off	off	off	off	off	off	off	off
Acutated Walk Rest	off	off	off	off	off	off	off	off
Conditional Red	off	off	off	off	off	off	off	off
Flash Wlk thru PCLR	off	off	off	off	off	off	off	off

Remote Flash Entry Phase
Remote Flash Exit Phase
Remote Flash Exit Interval

Ring 1:4 Ring 2:8
Ring 1:2 Ring 2:6
Green

Startup Controller Phase
Startup Controller Interval

Ring 1:2 Ring 2:6
Green

Fast Flash Rate
Test B Input

60/Min
Dimming

Local 19

HP @ Elden (East)

Page 2

Startup Red Time 5.0 Sec.
 Startup Flash Time 0.0 Sec.
 Red Revert Time 0.0 Sec.
 Inc Yel/Red Time 0 %
 TBC Backup Delay 0 Mins

Auto Ped Clear Off
 Ped Enhancement Off

5 Head Yellow Blank	ON	ON	ON	ON	ON	ON	ON	ON
5 Head Phase Restrict	ON	ON	ON	ON	ON	ON	ON	ON

Dual Entry Mode On

Phase 1-8

Dual Entry Phase	None	None	None	None	None	2	None	None
Phs Pair	1/2		3/4		5/6		7/8	
Cond. Serv/Reservice	Off		Off		Off		Off	
Cond. Max Times	0		0		0		0	

Phase 1-8

Simultaneous Gap Out	R	R	R	R	R	R	R	R
----------------------	---	---	---	---	---	---	---	---

Phase 1-8

Overlap A	off	off	off	off	off	off	off	off
Overlap B	off	off	off	off	off	off	off	off
Overlap C	off	off	off	off	off	off	off	off
Overlap D	off	off	off	off	off	off	off	off

Phase 1-8 & Overlap A-D

Overlap A Grn Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap A Yel Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap A Red Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap B Grn Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap B Yel Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap B Red Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap C Grn Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap C Yel Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap C Red Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap D Grn Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap D Yel Inh	X	X	X	X	X	X	X	X	X	X	X
Overlap D Red Inh	X	X	X	X	X	X	X	X	X	X	X

Delay Yellow Red

Delay A Overlap	0.0	4.0	2.0
Delay B Overlap	0.0	4.0	2.0
Delay C Overlap	0.0	4.0	2.0
Delay D Overlap	0.0	4.0	2.0

Local 19

HP @ Elden (East)

Page 3

Detector Fail Sample Period 0

Detector Params

Volume Sample Period 15 Minutes

Alternate Sample Period 30 Minutes

Det Vol Enable	1 to 8	off	off	off	off	off	off	off	off
Det Vol Enable	9 to 16	off	off	off	off	off	off	off	off
Det Vol Enable	17 to 24	ON	ON	ON	ON	off	off	off	off

Detectors 1 to 8

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	1	2	3	4	5	6	7	8	
Extend/Switch	6/1	2/2	8/3	4/4	5/5	6/6	4/7	8/8	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Detectors 9 to 16

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	None	None	None	None	None	None	None	None	
Extend/Switch	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Detectors 17 to 24

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	None	None	None	None	None	None	None	None	
Extend/Switch	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Printer Params

Printer Parity 7 Bits Space Parity

Printer Baud Rate 1200 Baud

Page 4

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
----------------	-----	-----	-----	-----	-----	-----	-----	-----

Local 19

HP @ Elden (East)

Page 5

Service Plan 8

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Max Plans (Phase 1 to 8)

Max Plan Mode	TOD/CY	TOD/CY	TOD/CY	TOD/CY	TOD/CY	TOD/CY	TOD/CY	TOD/CY
---------------	--------	--------	--------	--------	--------	--------	--------	--------

Max Plan 1

Max Plan Normal	15	25	15	20	10	25	15	20
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 2

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 3

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 4

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 5

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 6

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 7

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Max Plan 8

Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Dial Up

Phone Number 1	0
----------------	---

Phone Number 2	0
----------------	---

Modem Init String

Connect Mode	Direct
Monitor Port	Port A RS232

Local 19 HP @ Elden (East) Page 6

Report Function Scheduling

User Defined 1	None
User Defined 2	None
User Defined 3	None
User Defined 4	None
User Defined 5	None
User Defined 6	Schedule A
User Defined 7	Schedule A
User Defined 8	None
Clock Fail	Schedule A
Power On/Off	Schedule A
Not Used	None
Monitor Status Bits	Schedule A
Checksum Fail	Schedule A
Detector Fail	None
Remote Flash	Schedule A
Manual Control Enable	Schedule A
High Priority PE	None
Cycle Fail	Schedule A
Coordination Fail	Schedule A
Keyboard Operation	Schedule A
System/Free	Schedule A
Flasher Monitor	None
Low Priority PE	None
Local Cycle MOE'S	Schedule A

Report Schedule A	B	C	Vol
Report Schedule Delay	0 Mins	0 Mins	0 Mins

Phase 1 to 8

Phase 1	Overlap	off	off	off	off	off	off	off	off
Phase 2	Overlap	off	off	off	off	off	off	off	off
Phase 3	Overlap	off	off	off	off	off	off	off	off
Phase 4	Overlap	off	off	off	off	off	off	off	off
Phase 5	Overlap	off	off	off	off	off	off	off	off
Phase 6	Overlap	off	off	off	off	off	off	off	off
Phase 7	Overlap	off	off	off	off	off	off	off	off
Phase 8	Overlap	off	off	off	off	off	off	off	off
Overlap Delays		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phases 1 to 8

Overlapping Peds	1	off	off	off	off	off	off	off
Overlapping Peds	2	off	off	off	off	off	off	off
Overlapping Peds	3	off	off	off	off	off	off	off
Overlapping Peds	4	off	off	off	off	off	off	off
Overlapping Peds	5	off	off	off	off	off	off	off
Overlapping Peds	6	off	off	off	off	off	off	off

Overlapping Peds 7	off	off	off	off	off	off	off	off
Overlapping Peds 8	off	off	off	off	off	off	off	off

Local 19	HP @ Elden (East)		Page 7
Red Yellow Green	Red None	Yellow None	Green None
Dimming Phase 1	Red None	Yellow None	Green None
Dimming Phase 2	Red None	Yellow None	Green None
Dimming Phase 3	Red None	Yellow None	Green None
Dimming Phase 4	Red None	Yellow None	Green None
Dimming Phase 5	Red None	Yellow None	Green None
Dimming Phase 6	Red None	Yellow None	Green None
Dimming Phase 7	Red None	Yellow None	Green None
Dimming Phase 8	Red None	Yellow None	Green None
Dimming OVL A	Red None	Yellow None	Green None
Dimming OVL B	Red None	Yellow None	Green None
Dimming OVL C	Red None	Yellow None	Green None
Dimming OVL D	Red None	Yellow None	Green None
Walk Don't Walk Ped Clr			
Walk Dim Phs 1	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 2	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 3	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 4	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 5	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 6	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 7	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 8	Walk None	Don't Walk None	Ped Clr None

Max Trap Speed Limit	0
Speed Trap A (Det 9/10)	0 Inches
Speed Trap B (Det 11/12)	0 Inches
Speed Trap C (Det 13/14)	0 Inches
Speed Trap D (Det 15/16)	0 Inches

Comp Speed Det 1	0/100ths Sec
Comp Speed Det 2	0/100ths Sec
Comp Speed Det 3	0/100ths Sec
Comp Speed Det 4	0/100ths Sec
Comp Speed Det 5	0/100ths Sec
Comp Speed Det 6	0/100ths Sec
Comp Speed Det 7	0/100ths Sec
Comp Speed Det 8	0/100ths Sec
Comp Speed Det 9	0/100ths Sec
Comp Speed Det 10	0/100ths Sec
Comp Speed Det 11	0/100ths Sec
Comp Speed Det 12	0/100ths Sec
Comp Speed Det 13	0/100ths Sec
Comp Speed Det 14	0/100ths Sec
Comp Speed Det 15	0/100ths Sec
Comp Speed Det 16	0/100ths Sec

Comp Speed Det 17	0/100ths Sec	
Comp Speed Det 18	0/100ths Sec	
Comp Speed Det 19	0/100ths Sec	
Comp Speed Det 20	0/100ths Sec	
Comp Speed Det 21	0/100ths Sec	
Comp Speed Det 22	0/100ths Sec	
Comp Speed Det 23	0/100ths Sec	
Local 19	HP @ Elden (East)	Page 8
Comp Speed Det 24	0/100ths Sec	

Phase 1 to 8								
Advance Warn On/Off	off	off	off	off	off	off	off	off
Overlap A to D								
Advance Warn On/Off		Off		Off		Off	Off	

Phase 1 to 8 (9-12=Over A/D)

Cond Overlaps Phs 1	Overlap 0	Overlap 0
Cond Overlaps Phs 2	Overlap 0	Overlap 0
Cond Overlaps Phs 3	Overlap 0	Overlap 0
Cond Overlaps Phs 4	Overlap 0	Overlap 0
Cond Overlaps Phs 5	Overlap 0	Overlap 0
Cond Overlaps Phs 6	Overlap 0	Overlap 0
Cond Overlaps Phs 7	Overlap 0	Overlap 0
Cond Overlaps Phs 8	Overlap 0	Overlap 0
Cond Overlaps O/L A	Overlap 0	Overlap 0
Cond Overlaps O/L B	Overlap 0	Overlap 0
Cond Overlaps O/L C	Overlap 0	Overlap 0
Cond Overlaps O/L D	Overlap 0	Overlap 0

Phase 1 to 8 (9-12=Over A/D)

Adv Warn Deact Phs 1	0 Secs
Adv Warn Deact Phs 2	0 Secs
Adv Warn Deact Phs 3	0 Secs
Adv Warn Deact Phs 4	0 Secs
Adv Warn Deact Phs 5	0 Secs
Adv Warn Deact Phs 6	0 Secs
Adv Warn Deact Phs 7	0 Secs
Adv Warn Deact Phs 8	0 Secs
Adv Warn Deact O/L A	0 Secs
Adv Warn Deact O/L B	0 Secs
Adv Warn Deact O/L C	0 Secs
Adv Warn Deact O/L D	0 Secs

MOE Norm Sample Period	0 Min
MOE Alt Sample Period	0 Min

Phases 1 to 8 0=Unassigned

MOE Det Ass 1 to 8	0	0	0	0	0	0	0	0
MOE Det Ass 9 to 16	0	0	0	0	0	0	0	0
MOE Det Ass 17 to 24	0	0	0	0	0	0	0	0

Map Phases 1 - 4

System Wide Map	2	4	6	8
Day Plans				
Day Program 1	7:00:00		Circuit #13 On	
Day Program 1	7:00:00		Cycle 2 Split 2 Offset 4	
Day Program 1	11:00:00		Cycle 1 Split 3 Offset 3	
Day Program 1	14:30:00		Cylce 1 Split 2 Offset 2	
Day Program 1	20:30:00		Circuit #13 Off	

Local 19 HP @ Elden (East) Page 9

Day Program 2	9:00:00	Cycle 1 Split 4 Offset 4
Day Program 2	9:00:00	Circuit # 13 On
Day Program 2	19:00:00	Circuit # 13 Off

Week Programs	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Week Prog 1	DP 2	DP 1	DP 1	DP 1	DP 1	DP 1	DP 2
Week Prog 2	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 3	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 4	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 5	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 6	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 7	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 8	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 9	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 10	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1

Exception Day 1	Month 0	Day 0	->	Day Program 0
Exception Day 2	Month 0	Day 0	->	Day Program 0
Exception Day 3	Month 0	Day 0	->	Day Program 0
Exception Day 4	Month 0	Day 0	->	Day Program 0
Exception Day 5	Month 0	Day 0	->	Day Program 0
Exception Day 6	Month 0	Day 0	->	Day Program 0
Exception Day 7	Month 0	Day 0	->	Day Program 0
Exception Day 8	Month 0	Day 0	->	Day Program 0
Exception Day 9	Month 0	Day 0	->	Day Program 0
Exception Day 10	Month 0	Day 0	->	Day Program 0
Exception Day 11	Month 0	Day 0	->	Day Program 0
Exception Day 12	Month 0	Day 0	->	Day Program 0
Exception Day 13	Month 0	Day 0	->	Day Program 0
Exception Day 14	Month 0	Day 0	->	Day Program 0
Exception Day 15	Month 0	Day 0	->	Day Program 0
Exception Day 16	Month 0	Day 0	->	Day Program 0
Exception Day 17	Month 0	Day 0	->	Day Program 0
Exception Day 18	Month 0	Day 0	->	Day Program 0
Exception Day 19	Month 0	Day 0	->	Day Program 0
Exception Day 20	Month 0	Day 0	->	Day Program 0
Exception Day 21	Month 0	Day 0	->	Day Program 0
Exception Day 22	Month 0	Day 0	->	Day Program 0

Exception Day 23	Month 0	Day 0	->	Day Program 0
Exception Day 24	Month 0	Day 0	->	Day Program 0
Exception Day 25	Month 0	Day 0	->	Day Program 0
Exception Day 26	Month 0	Day 0	->	Day Program 0
Exception Day 27	Month 0	Day 0	->	Day Program 0
Exception Day 28	Month 0	Day 0	->	Day Program 0
Exception Day 29	Month 0	Day 0	->	Day Program 0
Exception Day 30	Month 0	Day 0	->	Day Program 0
Exception Day 31	Month 0	Day 0	->	Day Program 0

Local 19

HP @ Elden (East)

Page 10

Exception Day 32	Month 0	Day 0	->	Day Program 0
Exception Day 33	Month 0	Day 0	->	Day Program 0
Exception Day 34	Month 0	Day 0	->	Day Program 0
Exception Day 35	Month 0	Day 0	->	Day Program 0

Daylight Savings Time	Enabled
Coord/Time Clock Out	Time Clock

Synch Reference Time	8-Cycle
External Time Synch	Std

Cycle Reference Times

Cycle 1 Synch Reference Time	0:00:00
Cycle 2 Synch Reference Time	0:00:00
Cycle 3 Synch Reference Time	0:00:00
Cycle 4 Synch Reference Time	0:00:00
Cycle 5 Synch Reference Time	0:00:00
Cycle 6 Synch Reference Time	0:00:00
Cycle 7 Synch Reference Time	0:00:00
Cycle 8 Synch Reference Time	0:00:00

Cycle Reference Times

Year Plans By Week

Week Number 1	--> Day Plan 01
Week Number 2	--> Day Plan 01
Week Number 3	--> Day Plan 01
Week Number 4	--> Day Plan 01
Week Number 5	--> Day Plan 01
Week Number 6	--> Day Plan 01
Week Number 7	--> Day Plan 01
Week Number 8	--> Day Plan 01
Week Number 9	--> Day Plan 01
Week Number 10	--> Day Plan 01
Week Number 11	--> Day Plan 01
Week Number 12	--> Day Plan 01
Week Number 13	--> Day Plan 01
Week Number 14	--> Day Plan 01
Week Number 15	--> Day Plan 01
Week Number 16	--> Day Plan 01
Week Number 17	--> Day Plan 01
Week Number 18	--> Day Plan 01

Week Number 19	--> Day Plan 01
Week Number 20	--> Day Plan 01
Week Number 21	--> Day Plan 01
Week Number 22	--> Day Plan 01
Week Number 23	--> Day Plan 01
Week Number 24	--> Day Plan 01
Week Number 25	--> Day Plan 01
Week Number 26	--> Day Plan 01
Week Number 27	--> Day Plan 01
Week Number 28	--> Day Plan 01
Local 19	HP @ Elden (East)

Page 11

Week Number 29	--> Day Plan 01
Week Number 30	--> Day Plan 01
Week Number 31	--> Day Plan 01
Week Number 32	--> Day Plan 01
Week Number 33	--> Day Plan 01
Week Number 34	--> Day Plan 01
Week Number 35	--> Day Plan 01
Week Number 36	--> Day Plan 01
Week Number 37	--> Day Plan 01
Week Number 38	--> Day Plan 01
Week Number 39	--> Day Plan 01
Week Number 40	--> Day Plan 01
Week Number 41	--> Day Plan 01
Week Number 42	--> Day Plan 01
Week Number 43	--> Day Plan 01
Week Number 44	--> Day Plan 01
Week Number 45	--> Day Plan 01
Week Number 46	--> Day Plan 01
Week Number 47	--> Day Plan 01
Week Number 48	--> Day Plan 01
Week Number 49	--> Day Plan 01
Week Number 50	--> Day Plan 01
Week Number 51	--> Day Plan 01
Week Number 52	--> Day Plan 01
Week Number 53	--> Day Plan 01

Manual Circuits	
Manual Circuit 9	Auto
Manual Circuit 10	Auto
Manual Circuit 11	Auto
Manual Circuit 12	Auto
Manual Circuit 13	Auto
Manual Circuit 14	Auto
Manual Circuit 15	Auto
Manual Circuit 16	Auto
Manual Circuit 17	Auto
Manual Circuit 18	Auto
Manual Circuit 19	Auto
Manual Circuit 20	Auto
Manual Circuit 21	Auto
Manual Circuit 22	Auto

Manual Circuit	23	Auto
Manual Circuit	24	Auto
Manual Circuit	25	Auto
Manual Circuit	26	Auto
Manual Circuit	27	Auto
Manual Circuit	28	Auto
Manual Circuit	29	Auto
Manual Circuit	30	Auto
Manual Circuit	31	Auto
Manual Circuit	32	Auto
Manual Circuit	33	Auto
Local 19		
Manual Circuit	34	Auto
Manual Circuit	35	Auto
Manual Circuit	36	Auto
Manual Circuit	37	Auto
Manual Circuit	38	Auto
Manual Circuit	39	Auto
Manual Circuit	40	Auto
Manual Circuit	41	Auto
Manual Circuit	42	Auto
Manual Circuit	43	Auto
Manual Circuit	44	Auto
Manual Circuit	45	Auto
Manual Circuit	46	Auto
Manual Circuit	47	Auto
Manual Circuit	48	Auto
Manual Circuit	49	Auto
Manual Circuit	50	Auto
Manual Circuit	51	Auto
Manual Circuit	52	Auto
Manual Circuit	53	Auto
Manual Circuit	54	Auto
Manual Circuit	55	Auto
Manual Circuit	56	Auto
Manual Circuit	57	Auto
Manual Circuit	58	Auto
Manual Circuit	60	Auto
Manual Circuit	61	Auto
Manual Circuit	62	Auto
Manual Circuit	63	Auto
Manual Circuit	64	Auto
Manual Circuit	65	Auto
Manual Circuit	66	Auto
Manual Circuit	67	Auto
Manual Circuit	68	Auto
Manual Circuit	69	Auto
Manual Circuit	70	Auto
Manual Circuit	71	Auto
Manual Circuit	72	Auto
Manual Circuit	73	Auto
Manual Circuit	74	Auto

HP @ Elden (East)

Page 12

Manual Circuit	75	Auto
Manual Circuit	76	Auto
Manual Circuit	77	Auto
Manual Circuit	78	Auto
Manual Circuit	79	Auto
Manual Circuit	80	Auto
Manual Circuit	81	Auto
Manual Circuit	82	Auto
Manual Circuit	83	Auto
Manual Circuit	84	Auto
Manual Circuit	85	Auto
Manual Circuit	86	Auto
Local 19		
Manual Circuit	87	Auto
Manual Circuit	88	Auto
Manual Circuit	89	Auto
Manual Circuit	90	Auto
Manual Circuit	91	Auto
Manual Circuit	92	Auto
Manual Circuit	93	Auto
Manual Circuit	94	Auto
Manual Circuit	95	Auto
Manual Circuit	96	Auto
Manual Circuit	97	Auto
Manual Circuit	98	Auto
Manual Circuit	99	Auto
Manual Circuit	100	Auto
Manual Circuit	101	Auto
Manual Circuit	102	Auto
Manual Circuit	103	Auto
Manual Circuit	104	Auto
Manual Circuit	105	Auto
Manual Circuit	106	Auto
Manual Circuit	107	Auto
Manual Circuit	108	Auto
Manual Circuit	109	Auto
Manual Circuit	110	Auto
Manual Circuit	111	Auto
Manual Circuit	112	Auto
Manual Circuit	113	Auto
Manual Circuit	114	Auto
Manual Circuit	115	Auto
Manual Circuit	116	Auto
Manual Circuit	117	Auto
Manual Circuit	118	Auto
Manual Circuit	119	Auto
Manual Circuit	120	Auto
Manual Circuit	121	Auto
Manual Circuit	122	Auto
Manual Circuit	123	Auto
Manual Circuit	124	Auto
Manual Circuit	125	Auto

HP @ Elden (East)

Page 13

Manual Circuit 126 Auto
 Manual Circuit 127 Auto
 Manual Circuit 128 Auto
 Manual Circuit 129 Auto
 Manual Circuit 130 Auto
 Manual Circuit 131 Auto
 Manual Circuit 132 Auto
 Manual Circuit 133 Auto
 Manual Circuit 134 Auto
 Manual Circuit 135 Auto
 Manual Circuit 136 Auto
 Manual Circuit 137 Auto
 Manual Circuit 138 Auto

Local 19

HP @ Elden (East)

Page 14

Manual Circuit 139 Auto
 Manual Circuit 140 Auto
 Manual Circuit 141 Auto
 Manual Circuit 142 Auto
 Manual Circuit 143 Auto
 Manual Circuit 144 Auto
 Manual Circuit 145 Auto
 Manual Circuit 146 Auto
 Manual Circuit 147 Auto
 Manual Circuit 148 Auto
 Manual Circuit 149 Auto
 Manual Circuit 150 Auto

Functions 1 to 8

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Functions 9 to 16

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Functions 17 to 24

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cycle Select Use T/C
 Split Select Use T/C
 Offset Select Use T/C
 Remote Flash Off
 Remote System Use T/C
 Subordinated Coord Mode Off
 Floating Force Offs Off
 Offset Seeking Mode Shortway
 Man CSO to Free: Cycle Disabled
 Man CSO to Free: Split Disabled
 Man CSO to Free: Offset Disabled

Cycle 1 to 8

Max Dwell Time (Seconds)	0	0	0	0	0	0	0	0
--------------------------	---	---	---	---	---	---	---	---

Loss to Switch	off
System Max 2	off
System to CAN	off

Force Offs (Cycle/Split/Phase FO in Seconds)

	FO 1	FO 2	FO 3	FO 4	FO 5	FO 6	FO 7	FO 8
1/1	0	0	0	0	0	0	0	0
1/2	78	0	17	60	76	0	15	6
1/3	75	0	15	57	73	0	15	57
1/4	81	0	20	64	79	0	26	64
2/1	84	0	21	63	79	0	21	63
2/2	89	0	25	68	89	0	20	68
2/3	0	0	0	0	0	0	0	0
2/4	104	0	39	83	99	0	18	83
Local 19	HP @ Elden (East)				Page 15			
3/1	112	0	48	91	112	0	25	91
3/2	112	0	48	91	112	0	25	91
3/3	112	0	48	91	112	0	25	91
3/4	112	0	48	91	112	0	25	91
4/1	112	0	48	91	112	0	25	91
4/2	112	0	48	91	112	0	25	91
4/3	112	0	48	91	112	0	25	91
4/4	112	0	48	91	112	0	25	91
5/1	112	0	48	91	112	0	25	91
5/2	112	0	48	91	112	0	25	91
5/3	112	0	48	91	112	0	25	91
5/4	112	0	48	91	112	0	25	91
6/1	112	0	48	91	112	0	25	91
6/2	112	0	48	91	112	0	25	91
6/3	112	0	48	91	112	0	25	91
6/4	112	0	48	91	112	0	25	91
7/1	112	0	48	91	112	0	25	91
7/2	112	0	48	91	112	0	25	91
7/3	112	0	48	91	112	0	25	91
7/4	112	0	48	91	112	0	25	91
8/1	112	0	48	91	112	0	25	91
8/2	112	0	48	91	112	0	25	91
8/3	112	0	48	91	112	0	25	91
8/4	112	0	48	91	112	0	25	91
	112	0	48	91	112	0	25	91

Force Offs (Cycle/Split/ Phase FO in Seconds)

Permissive Times (Cycle/Split/Phase FO Start->End)

[illegible]

	3/1	0->5	0->5	0->5	0->5	0->5	0->5	0->5	0->5
	3/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	3/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	3/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	4/1	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	4/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	4/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	4/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	5/1	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	5/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	5/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	5/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	6/1	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	6/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	6/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
Local 19		HP @ Elden (East)				Page 16			
	6/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	7/1	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	7/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	7/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	7/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	8/1	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	8/2	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	8/3	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0
	8/4	0->0	0->0	0->0	0->0	0->0	0->0	0->0	0->0

Permissive Times (Cycle/Split/Phase Start -> End)

Offset Times (Cycle/Offset Offset in Seconds)

```

1/1/1 0 1/1/2 99 1/1/3 111 1/1/4 5 1/1/5 0 1/1/6 0 1/1/7 0 1/1/8 0
1/2/1 0 1/2/2 47 1/2/3 0 1/2/4 13 1/2/5 0 1/2/6 0 1/2/7 0 1/2/8 0
1/3/1 56 1/3/2 56 1/3/3 56 1/3/4 56 1/3/5 56 1/3/6 56 1/3/7 56 1/3/8 56
1/4/1 56 1/4/2 56 1/4/3 56 1/4/4 56 1/4/5 56 1/4/6 56 1/4/7 56 1/4/8 56
1/5/1 56 1/5/2 56 1/5/3 56 1/5/4 56 1/5/5 56 1/5/6 56 1/5/7 56 1/5/8 56
1/6/1 56 1/6/2 56 1/6/3 56 1/6/4 56 1/6/5 56 1/6/6 56 1/6/7 56 1/6/8 56
1/7/1 56 1/7/2 56 1/7/3 56 1/7/4 56 1/7/5 56 1/7/6 56 1/7/7 56 1/7/8 56
1/8/1 56 1/8/2 56 1/8/3 56 1/8/4 56 1/8/5 56 1/8/6 56 1/8/7 56 1/8/8 56

```

Offset Times (Cycle/Offset Offset in Seconds)

Cycle Times (Seconds) 120 140 160 160 160 160 160 160

Phase 1 to 8

Force Off 1 Phase Assoc	ON	off	off	off	off	off	off	off
Force Off 2 Phase Assoc	off	ON	off	off	off	off	off	off
Force Off 3 Phase Assoc	off	off	ON	off	off	off	off	off
Force Off 4 Phase Assoc	off	off	off	ON	off	off	off	off
Force Off 5 Phase Assoc	off	off	off	off	ON	off	off	off
Force Off 6 Phase Assoc	off	off	off	off	off	ON	off	off
Force Off 7 Phase Assoc	off	off	off	off	off	off	ON	off
Force Off 8 Phase Assoc	off	off	off	off	off	off	off	ON

Phase 1 to 8

Permissive 1 Phase Assoc	ON	ON	ON	ON	ON	ON	ON	ON
Permissive 2 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 3 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 4 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 5 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 6 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 7 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 8 Phase Assoc	off	off	off	off	off	off	off	off

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Local 19 HP @ Elden (East)

Page 17

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

(Cycle1) Split: 1	1	2	3	4
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle2)				
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle3)				
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle4)				
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle5)				
Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle6)				
Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle7)

Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle8)

Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

Local 19

HP @ Elden (East)

Page 18

(0=Auto Calc 1-255 Secs)

Ped Permissive	3 Secs
Permissive Type	Yield
AutoCalc Permissive Mode	Start at Cycle 0
Extendible Green Band %	0 Percent
Normal/CAN Option	Normal
Permissive Mode	Standard Permissive

Split Percentages (Cy/Spl/Ph)

1/1/1	0	1/1/2	0	1/1/3	0	1/1/4	0	1/1/5	0	1/1/6	0	1/1/7	0	1/1/8	0
1/2/1	0	1/2/2	0	1/2/3	0	1/2/4	0	1/2/5	0	1/2/6	0	1/2/7	0	1/2/8	0
1/3/1	0	1/3/2	0	1/3/3	0	1/3/4	0	1/3/5	0	1/3/6	0	1/3/7	0	1/3/8	0
1/4/1	0	1/4/2	0	1/4/3	0	1/4/4	0	1/4/5	0	1/4/6	0	1/4/7	0	1/4/8	0
2/1/1	0	2/1/2	0	2/1/3	0	2/1/4	0	2/1/5	0	2/1/6	0	2/1/7	0	2/1/8	0
2/2/1	0	2/2/2	0	2/2/3	0	2/2/4	0	2/2/5	0	2/2/6	0	2/2/7	0	2/2/8	0
2/3/1	0	2/3/2	0	2/3/3	0	2/3/4	0	2/3/5	0	2/3/6	0	2/3/7	0	2/3/8	0
2/4/1	0	2/4/2	0	2/4/3	0	2/4/4	0	2/4/5	0	2/4/6	0	2/4/7	0	2/4/8	0
3/1/1	0	3/1/2	0	3/1/3	0	3/1/4	0	3/1/5	0	3/1/6	0	3/1/7	0	3/1/8	0
3/2/1	0	3/2/2	0	3/2/3	0	3/2/4	0	3/2/5	0	3/2/6	0	3/2/7	0	3/2/8	0
3/3/1	0	3/3/2	0	3/3/3	0	3/3/4	0	3/3/5	0	3/3/6	0	3/3/7	0	3/3/8	0
3/4/1	0	3/4/2	0	3/4/3	0	3/4/4	0	3/4/5	0	3/4/6	0	3/4/7	0	3/4/8	0
4/1/1	0	4/1/2	0	4/1/3	0	4/1/4	0	4/1/5	0	4/1/6	0	4/1/7	0	4/1/8	0
4/2/1	0	4/2/2	0	4/2/3	0	4/2/4	0	4/2/5	0	4/2/6	0	4/2/7	0	4/2/8	0
4/3/1	0	4/3/2	0	4/3/3	0	4/3/4	0	4/3/5	0	4/3/6	0	4/3/7	0	4/3/8	0
4/4/1	0	4/4/2	0	4/4/3	0	4/4/4	0	4/4/5	0	4/4/6	0	4/4/7	0	4/4/8	0
5/1/1	0	5/1/2	0	5/1/3	0	5/1/4	0	5/1/5	0	5/1/6	0	5/1/7	0	5/1/8	0
5/2/1	0	5/2/2	0	5/2/3	0	5/2/4	0	5/2/5	0	5/2/6	0	5/2/7	0	5/2/8	0
5/3/1	0	5/3/2	0	5/3/3	0	5/3/4	0	5/3/5	0	5/3/6	0	5/3/7	0	5/3/8	0
5/4/1	0	5/4/2	0	5/4/3	0	5/4/4	0	5/4/5	0	5/4/6	0	5/4/7	0	5/4/8	0
6/1/1	0	6/1/2	0	6/1/3	0	6/1/4	0	6/1/5	0	6/1/6	0	6/1/7	0	6/1/8	0
6/2/1	0	6/2/2	0	6/2/3	0	6/2/4	0	6/2/5	0	6/2/6	0	6/2/7	0	6/2/8	0
6/3/1	0	6/3/2	0	6/3/3	0	6/3/4	0	6/3/5	0	6/3/6	0	6/3/7	0	6/3/8	0
6/4/1	0	6/4/2	0	6/4/3	0	6/4/4	0	6/4/5	0	6/4/6	0	6/4/7	0	6/4/8	0

7/1/1	0	7/1/2	0	7/1/3	0	7/1/4	0	7/1/5	0	7/1/6	0	7/1/7	0	7/1/8	0
7/2/1	0	7/2/2	0	7/2/3	0	7/2/4	0	7/2/5	0	7/2/6	0	7/2/7	0	7/2/8	0
7/3/1	0	7/3/2	0	7/3/3	0	7/3/4	0	7/3/5	0	7/3/6	0	7/3/7	0	7/3/8	0
7/4/1	0	7/4/2	0	7/4/3	0	7/4/4	0	7/4/5	0	7/4/6	0	7/4/7	0	7/4/8	0
8/1/1	0	8/1/2	0	8/1/3	0	8/1/4	0	8/1/5	0	8/1/6	0	8/1/7	0	8/1/8	0
8/2/1	0	8/2/2	0	8/2/3	0	8/2/4	0	8/2/5	0	8/2/6	0	8/2/7	0	8/2/8	0
8/3/1	0	8/3/2	0	8/3/3	0	8/3/4	0	8/3/5	0	8/3/6	0	8/3/7	0	8/3/8	0
8/4/1	0	8/4/2	0	8/4/3	0	8/4/4	0	8/4/5	0	8/4/6	0	8/4/7	0	8/4/8	0

Cycles per Sample Period	0
Split Mode	Queuing Detectors
Min Q's/FO's to Select Split	0

Phase 1 to 8

Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off

Local 19

HP @ Elden (East)

Page 19

Phase 1 Queue Detectors	0	0
Phase 2 Queue Detectors	0	0
Phase 3 Queue Detectors	0	0
Phase 4 Queue Detectors	0	0
Phase 5 Queue Detectors	0	0
Phase 6 Queue Detectors	0	0
Phase 7 Queue Detectors	0	0
Phase 8 Queue Detectors	0	0

Phase 1 Queue Det Delays	0.0	0.0
Phase 2 Queue Det Delays	0.0	0.0
Phase 3 Queue Det Delays	0.0	0.0
Phase 4 Queue Det Delays	0.0	0.0
Phase 5 Queue Det Delays	0.0	0.0
Phase 6 Queue Det Delays	0.0	0.0
Phase 7 Queue Det Delays	0.0	0.0
Phase 8 Queue Det Delays	0.0	0.0

Split Inhibits (Spl 2 to 4) ,21,1,Split Inhibits Cyc %d/Off %d

Split Inhibits (Spl 2 to 4) ,21,1,Split Inhibits Cyc %d/Off %d

Local 22
Sec Code-4096

HP@Grove

Page 1

Phase 1-8	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Initial	8.0	20.0	0.0	8.0	0.0	20.0	0.0	0.0
Passage	4.0	4.0	0.0	4.0	0.0	4.0	0.0	0.0
Yellow	4.0	4.0	0.0	4.0	0.0	4.0	0.0	0.0
Red	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0
Walk	0.0	7.0	0.0	7.0	0.0	0.0	0.0	0.0
Ped Clearance	0.0	22.0	0.0	20.0	0.0	0.0	0.0	0.0
Max 1	30.0	45.0	0.0	30.0	0.0	45.0	0.0	0.0
Max 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Auto Max Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Max Red Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time before Reduce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to Reduce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Variable Init	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Last Car Passage Recall Phase
Flash DW thru Yellow Off

Controller Seq Dual Ring
Lead/Lag Seq Barriers On

Phase 1-8	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Phases Used	ON	ON	off	ON	ON	ON	off	ON
Memory On/Off	off	off	off	off	off	off	off	off
Extendable Recall	off	ON	off	off	off	ON	off	off
Max Recall	off	off	off	off	off	off	off	off
Ped Recall	off	off	off	off	off	off	off	off
Call Phase Not Act 1	off	off	off	off	off	off	off	off
Call Phase Not Act 2	off	off	off	off	off	off	off	off
Flashing Walk	off	off	off	off	off	off	off	off
Soft Recall	off	off	off	off	off	off	off	off
Acutated Walk Rest	off	off	off	off	off	off	off	off
Conditional Red	off	off	off	off	off	off	off	off
Flash Wlk thru PCLR	off	off	off	off	off	off	off	off

Remote Flash Entry Phase Ring 1:0 Ring 2:0
Remote Flash Exit Phase Ring 1:0 Ring 2:0
Remote Flash Exit Interval Undef.

Startup Controller Phase Ring 1:2 Ring 2:6
Startup Controller Interval Green

Fast Flash Rate 60/Min
Test B Input Dimming

Local 22

HP@Grove

Page 2

Startup Red Time 0.0 Sec.
 Startup Flash Time 0.0 Sec.
 Red Revert Time 0.0 Sec.
 Inc Yel/Red Time 0 %
 TBC Backup Delay 0 Mins

Auto Ped Clear Off
 Ped Enhancement Off

5 Head Yellow Blank	ON	ON	ON	ON	ON	ON	ON	ON
5 Head Phase Restrict	ON	ON	ON	ON	ON	ON	ON	ON

Dual Entry Mode off

Phase 1-8

Dual Entry Phase None None None None None None None None

Phs Pair 1/2 3/4 5/6 7/8

Cond. Serv/Reservice Off Off Off Off

Cond. Max Times 0 0 0 0

Phase 1-8

Simultaneous Gap Out R R R R R R R R

Phase 1-8

Overlap A ON off off off off off off off

Overlap B off off off off off off off off

Overlap C off off off off off off off off

Overlap D off off off off off off off off

Phase 1-8 & Overlap A-D

Overlap A Grn Inh X X X X X X X X X X X X

Overlap A Yel Inh X X X X X X X X X X X X

Overlap A Red Inh X X X X X X X X X X X X

Overlap B Grn Inh X X X X X X X X X X X X

Overlap B Yel Inh X X X X X X X X X X X X

Overlap B Red Inh X X X X X X X X X X X X

Overlap C Grn Inh X X X X X X X X X X X X

Overlap C Yel Inh X X X X X X X X X X X X

Overlap C Red Inh X X X X X X X X X X X X

Overlap D Grn Inh X X X X X X X X X X X X

Overlap D Yel Inh X X X X X X X X X X X X

Overlap D Red Inh X X X X X X X X X X X X

Delay Yellow Red

Delay A Overlap 0.0 4.0 2.0

Delay B Overlap 0.0 4.0 2.0

Delay C Overlap 0.0 4.0 2.0

Delay D Overlap 0.0 4.0 2.0

Local 22

HP@Grove

Page 3

Detector Fail Sample Period 0

Detector Params

Volume Sample Period 15 Minutes

Alternate Sample Period 15 Minutes

Det Vol Enable	1 to 8	ON	ON	ON	ON	ON	ON	ON	ON
Det Vol Enable	9 to 16	off	off	off	off	off	off	off	off
Det Vol Enable	17 to 24	off	off	off	off	off	off	off	off

Detectors 1 to 8

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	1	2	3	4	5	6	7	8	
Extend/Switch	1/1	2/2	3/3	4/4	5/5	6/6	7/7	8/8	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Detectors 9 to 16

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	None	None	None	None	None	None	None	None	
Extend/Switch	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Detectors 17 to 24

Detector Memory	off	off	off	off	off	off	off	off	
Call Phase	None	None	None	None	None	None	None	None	
Extend/Switch	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Detector Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector Stretch Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Enable Del Det	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	Stnd	
Detector Fail Monitoring	off	off	off	off	off	off	off	off	
Detector Fail Max	0	0	0	0	0	0	0	0	
Det Count Min	0	0	0	0	0	0	0	0	0
Det Count Max	0	0	0	0	0	0	0	0	0

Printer Params

Printer Parity 7 Bits Space Parity

Printer Baud Rate 1200 Baud

Printer Baud Rate

1200 Baud

Local 22

HP@Grove

Page 4

Service Plan 1

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	5.0	30.0	0.0	8.0	5.0	30.0	0.0	8.0
Passage Time	3.0	3.0	0.0	3.0	3.0	3.0	0.0	3.0
Walk Time	0.0	7.0	0.0	7.0	0.0	7.0	0.0	7.0
Ped Clear Time	0.0	12.0	0.0	18.0	0.0	12.0	0.0	18.0

Service Plan 2

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Service Plan 3

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Service Plan 4

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Service Plan 5

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Service Plan 6

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Service Plan 7

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
----------------	-----	-----	-----	-----	-----	-----	-----	-----

Local 22

HP@Grove

Page 5

Service Plan 8

Mode Phs 1 to 8	Omit	Omit	Omit	Omit	Omit	Omit	Omit	Omit
Min Green Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ped Clear Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Max Plans (Phase 1 to 8)

Max Plan Mode	Nema	Nema	Nema	Nema	Nema	Nema	Nema	Nema
Max Plan 1								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 2								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 3								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 4								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 5								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 6								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 7								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0
Max Plan 8								
Max Plan Normal	0	0	0	0	0	0	0	0
Max Plan Failed	0	0	0	0	0	0	0	0

Dial Up

Phone Number 1 0

Phone Number 2 0

Modem Init String

Connect Mode	Direct
Monitor Port	Port A RS232

Local 22 HP@Grove Page 6

Report Function Scheduling

User Defined 1	None
User Defined 2	None
User Defined 3	None
User Defined 4	None
User Defined 5	None
User Defined 6	Schedule A
User Defined 7	Schedule A
User Defined 8	None
Clock Fail	Schedule A
Power On/Off	Schedule A
Not Used	None
Monitor Status Bits	Schedule A
Checksum Fail	Schedule A
Detector Fail	None
Remote Flash	Schedule A
Manual Control Enable	Schedule A
High Priority PE	None
Cycle Fail	Schedule A
Coordination Fail	Schedule A
Keyboard Operation	Schedule A
System/Free	Schedule A
Flasher Monitor	None
Low Priority PE	None
Local Cycle MOE'S	Schedule A

Report Schedule	A	B	C	VOL
-----------------	---	---	---	-----

Report Schedule Delay	0 Mins	0 Mins	0 Mins	0 Mins
-----------------------	--------	--------	--------	--------

Phase 1 to 8

Phase 1	Overlap	off	off	off	off	off	off	off
Phase 2	Overlap	off	off	off	off	off	off	off
Phase 3	Overlap	off	off	off	off	off	off	off
Phase 4	Overlap	off	off	off	off	off	off	off
Phase 5	Overlap	off	off	off	off	off	off	off
Phase 6	Overlap	off	off	off	off	off	off	off
Phase 7	Overlap	ON	off	ON	off	ON	ON	ON
Phase 8	Overlap	off	off	off	off	off	off	off
Overlap Delays		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Phases 1 to 8

Overlapping Peds	1	off	off	off	off	off	off	off
Overlapping Peds	2	off	off	off	off	off	off	off
Overlapping Peds	3	off	off	off	off	off	off	off
Overlapping Peds	4	off	off	off	off	off	off	off
Overlapping Peds	5	off	off	off	off	off	off	off
Overlapping Peds	6	off	off	off	off	off	off	off

Overlapping Peds 7	off	off	off	off	off	off	off	off
Overlapping Peds 8	off	off	off	off	off	off	off	off

Local 22	HP@Grove		Page 7
Red Yellow Green	Red None	Yellow None	Green None
Dimming Phase 1	Red None	Yellow None	Green None
Dimming Phase 2	Red None	Yellow None	Green None
Dimming Phase 3	Red None	Yellow None	Green None
Dimming Phase 4	Red None	Yellow None	Green None
Dimming Phase 5	Red None	Yellow None	Green None
Dimming Phase 6	Red None	Yellow None	Green None
Dimming Phase 7	Red None	Yellow None	Green None
Dimming Phase 8	Red None	Yellow None	Green None
Dimming OVL A	Red None	Yellow None	Green None
Dimming OVL B	Red None	Yellow None	Green None
Dimming OVL C	Red None	Yellow None	Green None
Dimming OVL D	Red None	Yellow None	Green None
Walk Don't Walk Ped Clr			
Walk Dim Phs 1	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 2	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 3	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 4	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 5	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 6	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 7	Walk None	Don't Walk None	Ped Clr None
Walk Dim Phs 8	Walk None	Don't Walk None	Ped Clr None

Max Trap Speed Limit	0
Speed Trap A (Det 9/10)	0 Inches
Speed Trap B (Det 11/12)	0 Inches
Speed Trap C (Det 13/14)	0 Inches
Speed Trap D (Det 15/16)	0 Inches

Comp Speed Det 1	0/100ths Sec
Comp Speed Det 2	0/100ths Sec
Comp Speed Det 3	0/100ths Sec
Comp Speed Det 4	0/100ths Sec
Comp Speed Det 5	0/100ths Sec
Comp Speed Det 6	0/100ths Sec
Comp Speed Det 7	0/100ths Sec
Comp Speed Det 8	0/100ths Sec
Comp Speed Det 9	0/100ths Sec
Comp Speed Det 10	0/100ths Sec
Comp Speed Det 11	0/100ths Sec
Comp Speed Det 12	0/100ths Sec
Comp Speed Det 13	0/100ths Sec
Comp Speed Det 14	0/100ths Sec
Comp Speed Det 15	0/100ths Sec
Comp Speed Det 16	0/100ths Sec

Comp Speed Det 17 0/100ths Sec
 Comp Speed Det 18 0/100ths Sec
 Comp Speed Det 19 0/100ths Sec
 Comp Speed Det 20 0/100ths Sec
 Comp Speed Det 21 0/100ths Sec
 Comp Speed Det 22 0/100ths Sec
 Comp Speed Det 23 0/100ths Sec
 Local 22 HP@Grove
 Comp Speed Det 24 0/100ths Sec

Page 8

Phase 1 to 8

Advance Warn On/Off	off	off	off	off	off	off	off	off
Overlap A to D								
Advance Warn On/Off		Off		Off		Off	Off	

Phase 1 to 8 (9-12=Over A/D)

Cond Overlaps Phs 1	Overlap 0	Overlap 0
Cond Overlaps Phs 2	Overlap 0	Overlap 0
Cond Overlaps Phs 3	Overlap 0	Overlap 0
Cond Overlaps Phs 4	Overlap 0	Overlap 0
Cond Overlaps Phs 5	Overlap 0	Overlap 0
Cond Overlaps Phs 6	Overlap 0	Overlap 0
Cond Overlaps Phs 7	Overlap 0	Overlap 0
Cond Overlaps Phs 8	Overlap 0	Overlap 0
Cond Overlaps O/L A	Overlap 0	Overlap 0
Cond Overlaps O/L B	Overlap 0	Overlap 0
Cond Overlaps O/L C	Overlap 0	Overlap 0
Cond Overlaps O/L D	Overlap 0	Overlap 0

Phase 1 to 8 (9-12=Over A/D)

Adv Warn Deact Phs 1	0 Secs
Adv Warn Deact Phs 2	0 Secs
Adv Warn Deact Phs 3	0 Secs
Adv Warn Deact Phs 4	0 Secs
Adv Warn Deact Phs 5	0 Secs
Adv Warn Deact Phs 6	0 Secs
Adv Warn Deact Phs 7	0 Secs
Adv Warn Deact Phs 8	0 Secs
Adv Warn Deact O/L A	0 Secs
Adv Warn Deact O/L B	0 Secs
Adv Warn Deact O/L C	0 Secs
Adv Warn Deact O/L D	0 Secs

MOE Norm Sample Period	0 Min
MOE Alt Sample Period	0 Min

Phases 1 to 8 0=Unassigned

MOE Det Ass 1 to 8	0	0	0	0	0	0	0	0
MOE Det Ass 9 to 16	0	0	0	0	0	0	0	0
MOE Det Ass 17 to 24	0	0	0	0	0	0	0	0

Map Phases 1 - 4

System Wide Map
Day Plans

2 4 6 8

Day Program 1	7:00:00	Cycle 2 Split 4 Offset 4
Day Program 1	7:00:00	Circuit #13 On
Day Program 1	11:00:00	Cycle 1 Split 3 Offset 3
Day Program 1	14:30:00	Cycle 1 Split 2 Offset 2
Day Program 1	20:30:00	Circuit #13 Off
Local 22	HP@Grove	

Page 9

Day Program 2	9:00:00	Cycle 1 Split 4 Offset 4
Day Program 2	9:00:00	Circuit #13 On
Day Program 2	19:00:00	Circuit #13 Off

Week Programs	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Week Prog 1	DP 2	DP 1	DP 1	DP 1	DP 1	DP 1	DP 2
Week Prog 2	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 3	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 4	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 5	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 6	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 7	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 8	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 9	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1
Week Prog 10	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1	DP 1

Exception Day 1	Month 0	Day 0	->	Day Program 0
Exception Day 2	Month 0	Day 0	->	Day Program 0
Exception Day 3	Month 0	Day 0	->	Day Program 0
Exception Day 4	Month 0	Day 0	->	Day Program 0
Exception Day 5	Month 0	Day 0	->	Day Program 0
Exception Day 6	Month 0	Day 0	->	Day Program 0
Exception Day 7	Month 0	Day 0	->	Day Program 0
Exception Day 8	Month 0	Day 0	->	Day Program 0
Exception Day 9	Month 0	Day 0	->	Day Program 0
Exception Day 10	Month 0	Day 0	->	Day Program 0
Exception Day 11	Month 0	Day 0	->	Day Program 0
Exception Day 12	Month 0	Day 0	->	Day Program 0
Exception Day 13	Month 0	Day 0	->	Day Program 0
Exception Day 14	Month 0	Day 0	->	Day Program 0
Exception Day 15	Month 0	Day 0	->	Day Program 0
Exception Day 16	Month 0	Day 0	->	Day Program 0
Exception Day 17	Month 0	Day 0	->	Day Program 0
Exception Day 18	Month 0	Day 0	->	Day Program 0
Exception Day 19	Month 0	Day 0	->	Day Program 0
Exception Day 20	Month 0	Day 0	->	Day Program 0
Exception Day 21	Month 0	Day 0	->	Day Program 0
Exception Day 22	Month 0	Day 0	->	Day Program 0

Exception Day 23	Month 0	Day 0	->	Day Program 0
Exception Day 24	Month 0	Day 0	->	Day Program 0
Exception Day 25	Month 0	Day 0	->	Day Program 0
Exception Day 26	Month 0	Day 0	->	Day Program 0
Exception Day 27	Month 0	Day 0	->	Day Program 0
Exception Day 28	Month 0	Day 0	->	Day Program 0
Exception Day 29	Month 0	Day 0	->	Day Program 0
Exception Day 30	Month 0	Day 0	->	Day Program 0
Exception Day 31	Month 0	Day 0	->	Day Program 0

Local 22

HP@Grove

Page 10

Exception Day 32	Month 0	Day 0	->	Day Program 0
Exception Day 33	Month 0	Day 0	->	Day Program 0
Exception Day 34	Month 0	Day 0	->	Day Program 0
Exception Day 35	Month 0	Day 0	->	Day Program 0

Daylight Savings Time	Enabled
Coord/Time Clock Out	Time Clock

Synch Reference Time	8-Cycle
External Time Synch	Std

Cycle Reference Times

Cycle 1 Synch Reference Time	0:00:00
Cycle 2 Synch Reference Time	0:00:00
Cycle 3 Synch Reference Time	0:00:00
Cycle 4 Synch Reference Time	0:00:00
Cycle 5 Synch Reference Time	0:00:00
Cycle 6 Synch Reference Time	0:00:00
Cycle 7 Synch Reference Time	0:00:00
Cycle 8 Synch Reference Time	0:00:00

Cycle Reference Times

Year Plans By Week

Week Number 1	--> Day Plan 01
Week Number 2	--> Day Plan 01
Week Number 3	--> Day Plan 01
Week Number 4	--> Day Plan 01
Week Number 5	--> Day Plan 01
Week Number 6	--> Day Plan 01
Week Number 7	--> Day Plan 01
Week Number 8	--> Day Plan 01
Week Number 9	--> Day Plan 01
Week Number 10	--> Day Plan 01
Week Number 11	--> Day Plan 01
Week Number 12	--> Day Plan 01
Week Number 13	--> Day Plan 01
Week Number 14	--> Day Plan 01
Week Number 15	--> Day Plan 01
Week Number 16	--> Day Plan 01
Week Number 17	--> Day Plan 01
Week Number 18	--> Day Plan 01

Week Number 19	--> Day Plan 01
Week Number 20	--> Day Plan 01
Week Number 21	--> Day Plan 01
Week Number 22	--> Day Plan 01
Week Number 23	--> Day Plan 01
Week Number 24	--> Day Plan 01
Week Number 25	--> Day Plan 01
Week Number 26	--> Day Plan 01
Week Number 27	--> Day Plan 01
Week Number 28	--> Day Plan 01
Local 22	HP@Grove

Page 11

Week Number 29	--> Day Plan 01
Week Number 30	--> Day Plan 01
Week Number 31	--> Day Plan 01
Week Number 32	--> Day Plan 01
Week Number 33	--> Day Plan 01
Week Number 34	--> Day Plan 01
Week Number 35	--> Day Plan 01
Week Number 36	--> Day Plan 01
Week Number 37	--> Day Plan 01
Week Number 38	--> Day Plan 01
Week Number 39	--> Day Plan 01
Week Number 40	--> Day Plan 01
Week Number 41	--> Day Plan 01
Week Number 42	--> Day Plan 01
Week Number 43	--> Day Plan 01
Week Number 44	--> Day Plan 01
Week Number 45	--> Day Plan 01
Week Number 46	--> Day Plan 01
Week Number 47	--> Day Plan 01
Week Number 48	--> Day Plan 01
Week Number 49	--> Day Plan 01
Week Number 50	--> Day Plan 01
Week Number 51	--> Day Plan 01
Week Number 52	--> Day Plan 01
Week Number 53	--> Day Plan 01

Manual Circuits	
Manual Circuit 9	Auto
Manual Circuit 10	Auto
Manual Circuit 11	Auto
Manual Circuit 12	Auto
Manual Circuit 13	Auto
Manual Circuit 14	Auto
Manual Circuit 15	Auto
Manual Circuit 16	Auto
Manual Circuit 17	Auto
Manual Circuit 18	Auto
Manual Circuit 19	Auto
Manual Circuit 20	Auto
Manual Circuit 21	Auto
Manual Circuit 22	Auto

Manual Circuit	23	Auto
Manual Circuit	24	Auto
Manual Circuit	25	Auto
Manual Circuit	26	Auto
Manual Circuit	27	Auto
Manual Circuit	28	Auto
Manual Circuit	29	Auto
Manual Circuit	30	Auto
Manual Circuit	31	Auto
Manual Circuit	32	Auto
Manual Circuit	33	Auto
Local 22		
Manual Circuit	34	Auto
Manual Circuit	35	Auto
Manual Circuit	36	Auto
Manual Circuit	37	Auto
Manual Circuit	38	Auto
Manual Circuit	39	Auto
Manual Circuit	40	Auto
Manual Circuit	41	Auto
Manual Circuit	42	Auto
Manual Circuit	43	Auto
Manual Circuit	44	Auto
Manual Circuit	45	Auto
Manual Circuit	46	Auto
Manual Circuit	47	Auto
Manual Circuit	48	Auto
Manual Circuit	49	Auto
Manual Circuit	50	Auto
Manual Circuit	51	Auto
Manual Circuit	52	Auto
Manual Circuit	53	Auto
Manual Circuit	54	Auto
Manual Circuit	55	Auto
Manual Circuit	56	Auto
Manual Circuit	57	Auto
Manual Circuit	58	Auto
Manual Circuit	60	Auto
Manual Circuit	61	Auto
Manual Circuit	62	Auto
Manual Circuit	63	Auto
Manual Circuit	64	Auto
Manual Circuit	65	Auto
Manual Circuit	66	Auto
Manual Circuit	67	Auto
Manual Circuit	68	Auto
Manual Circuit	69	Auto
Manual Circuit	70	Auto
Manual Circuit	71	Auto
Manual Circuit	72	Auto
Manual Circuit	73	Auto
Manual Circuit	74	Auto

HP@Grove

Page 12

Manual Circuit	75	Auto
Manual Circuit	76	Auto
Manual Circuit	77	Auto
Manual Circuit	78	Auto
Manual Circuit	79	Auto
Manual Circuit	80	Auto
Manual Circuit	81	Auto
Manual Circuit	82	Auto
Manual Circuit	83	Auto
Manual Circuit	84	Auto
Manual Circuit	85	Auto
Manual Circuit	86	Auto
Local 22		
Manual Circuit	87	Auto
Manual Circuit	88	Auto
Manual Circuit	89	Auto
Manual Circuit	90	Auto
Manual Circuit	91	Auto
Manual Circuit	92	Auto
Manual Circuit	93	Auto
Manual Circuit	94	Auto
Manual Circuit	95	Auto
Manual Circuit	96	Auto
Manual Circuit	97	Auto
Manual Circuit	98	Auto
Manual Circuit	99	Auto
Manual Circuit	100	Auto
Manual Circuit	101	Auto
Manual Circuit	102	Auto
Manual Circuit	103	Auto
Manual Circuit	104	Auto
Manual Circuit	105	Auto
Manual Circuit	106	Auto
Manual Circuit	107	Auto
Manual Circuit	108	Auto
Manual Circuit	109	Auto
Manual Circuit	110	Auto
Manual Circuit	111	Auto
Manual Circuit	112	Auto
Manual Circuit	113	Auto
Manual Circuit	114	Auto
Manual Circuit	115	Auto
Manual Circuit	116	Auto
Manual Circuit	117	Auto
Manual Circuit	118	Auto
Manual Circuit	119	Auto
Manual Circuit	120	Auto
Manual Circuit	121	Auto
Manual Circuit	122	Auto
Manual Circuit	123	Auto
Manual Circuit	124	Auto
Manual Circuit	125	Auto

HP@Grove

Page 13

Manual Circuit 126 Auto
Manual Circuit 127 Auto
Manual Circuit 128 Auto
Manual Circuit 129 Auto
Manual Circuit 130 Auto
Manual Circuit 131 Auto
Manual Circuit 132 Auto
Manual Circuit 133 Auto
Manual Circuit 134 Auto
Manual Circuit 135 Auto
Manual Circuit 136 Auto
Manual Circuit 137 Auto
Manual Circuit 138 Auto

Local 22

HP@Grove

Page 14

Manual Circuit 139 ON
Manual Circuit 140 Auto
Manual Circuit 141 Auto
Manual Circuit 142 Auto
Manual Circuit 143 Auto
Manual Circuit 144 Auto
Manual Circuit 145 Auto
Manual Circuit 146 Auto
Manual Circuit 147 Auto
Manual Circuit 148 Auto
Manual Circuit 149 Auto
Manual Circuit 150 Auto

Functions 1 to 8

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Functions 9 to 16

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Functions 17 to 24

Special Functions	0	0	0	0	0	0	0	0
Spcl Functions Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cycle Select Use T/C
Split Select Use T/C
Offset Select Use T/C
Remote Flash Off
Remote System Off
Subordinated Coord Mode Off
Floating Force Offs Off
Offset Seeking Mode Shortway
Man CSO to Free: Cycle Disabled
Man CSO to Free: Split Disabled
Man CSO to Free: Offset Disabled

Cycle 1 to 8

Max Dwell Time (Seconds)	0	0	0	0	0	0	0	0
--------------------------	---	---	---	---	---	---	---	---

Loss to Switch	off
System Max 2	off
System to CAN	off

Force Offs (Cycle/Split/Phase FO in Seconds)

	FO 1	FO 2	FO 3	FO 4	FO 5	FO 6	FO 7	FO 8
1/1	0	0	0	0	0	0	0	0
1/2	73	0	0	46	0	0	0	0
1/3	53	0	0	33	0	0	0	0
1/4	62	0	0	34	0	0	0	0
2/1	0	0	0	0	0	0	0	0
2/2	83	0	0	51	0	0	0	0
2/3	0	0	0	0	0	0	0	0
2/4	86	0	0	50	0	0	0	0
Local 22	HP@Grove				Page 15			
3/1	80	0	0	40	0	0	0	0
3/2	0	0	0	0	0	0	0	0
3/3	0	0	0	0	0	0	0	0
3/4	0	0	0	0	0	0	0	0
4/1	0	0	0	0	0	0	0	0
4/2	0	0	0	0	0	0	0	0
4/3	0	0	0	0	0	0	0	0
4/4	0	0	0	0	0	0	0	0
5/1	0	0	0	0	0	0	0	0
5/2	0	0	0	0	0	0	0	0
5/3	0	0	0	0	0	0	0	0
5/4	0	0	0	0	0	0	0	0
6/1	0	0	0	0	0	0	0	0
6/2	0	0	0	0	0	0	0	0
6/3	0	0	0	0	0	0	0	0
6/4	0	0	0	0	0	0	0	0
7/1	0	0	0	0	0	0	0	0
7/2	0	0	0	0	0	0	0	0
7/3	0	0	0	0	0	0	0	0
7/4	0	0	0	0	0	0	0	0
8/1	0	0	0	0	0	0	0	0
8/2	0	0	0	0	0	0	0	0
8/3	0	0	0	0	0	0	0	0
8/4	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

Force Offs (Cycle/Split/ Phase FO in Seconds)

Permissive Times (Cycle/Split/Phase FO Start->End)

[illegible]

	3/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	3/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	3/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	3/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	4/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	4/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	4/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	4/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	5/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	5/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	5/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	5/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	6/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	6/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	6/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
Local 22			HP@Grove				Page 16	
	6/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	7/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	7/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	7/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	7/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	8/1	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	8/2	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	8/3	0->5	0->0	0->0	0->0	0->0	0->0	0->0
	8/4	0->5	0->0	0->0	0->0	0->0	0->0	0->0

Permissive Times (Cycle/Split/Phase Start -> End)

Offset Times (Cycle/Offset Offset in Seconds)

1/1/1	0	1/1/2	60	1/1/3	10	1/1/4	10	1/1/5	0	1/1/6	0	1/1/7	0	1/1/8	0
1/2/1	0	1/2/2	39	1/2/3	0	1/2/4	11	1/2/5	0	1/2/6	0	1/2/7	0	1/2/8	0
1/3/1	61	1/3/2	61	1/3/3	61	1/3/4	61	1/3/5	0	1/3/6	0	1/3/7	0	1/3/8	0
1/4/1	61	1/4/2	61	1/4/3	61	1/4/4	61	1/4/5	0	1/4/6	0	1/4/7	0	1/4/8	0
1/5/1	61	1/5/2	61	1/5/3	61	1/5/4	61	1/5/5	0	1/5/6	0	1/5/7	0	1/5/8	0
1/6/1	61	1/6/2	61	1/6/3	61	1/6/4	61	1/6/5	0	1/6/6	0	1/6/7	0	1/6/8	0
1/7/1	61	1/7/2	61	1/7/3	61	1/7/4	61	1/7/5	0	1/7/6	0	1/7/7	0	1/7/8	0
1/8/1	0	1/8/2	0	1/8/3	0	1/8/4	0	1/8/5	0	1/8/6	0	1/8/7	0	1/8/8	0

Offset Times (Cycle/Offset Offset in Seconds)

Cycle Times (Seconds)	120	140	160	160	160	160	160	160
-----------------------	-----	-----	-----	-----	-----	-----	-----	-----

Phase 1 to 8

Force Off 1 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 2 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 3 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 4 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 5 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 6 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 7 Phase Assoc	off	off	off	off	off	off	off	off
Force Off 8 Phase Assoc	off	off	off	off	off	off	off	off

Phase 1 to 8

Permissive 1 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 2 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 3 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 4 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 5 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 6 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 7 Phase Assoc	off	off	off	off	off	off	off	off
Permissive 8 Phase Assoc	off	off	off	off	off	off	off	off

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Local 22

HP@Grove

Page 17

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

Lead/Lag Seq Disabled

(Cycle1) Split: 1	1	2	3	4
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle2)				
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle3)				
Coord Phases	2-6	2-6	2-6	2-6
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle4)				
Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle5)				
Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle6)				
Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle7)

Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

(Cycle8)

Coord Phases	0-0	0-0	0-0	0-0
Service Plan	0	0	0	0
Max Plan	0	0	0	0

Local 22

HP@Grove

Page 18

(0=Auto Calc 1-255 Secs)

Ped Permissive	0 Secs
Permissive Type	Yield
AutoCalc Permissive Mode	Start at Cycle 0
Extendible Green Band %	0 Percent
Normal/CAN Option	Normal
Permissive Mode	Standard Permissive

Split Percentages (Cy/Spl/Ph)

1/1/1	0	1/1/2	0	1/1/3	0	1/1/4	0	1/1/5	0	1/1/6	0	1/1/7	0	1/1/8	0
1/2/1	0	1/2/2	0	1/2/3	0	1/2/4	0	1/2/5	0	1/2/6	0	1/2/7	0	1/2/8	0
1/3/1	0	1/3/2	0	1/3/3	0	1/3/4	0	1/3/5	0	1/3/6	0	1/3/7	0	1/3/8	0
1/4/1	0	1/4/2	0	1/4/3	0	1/4/4	0	1/4/5	0	1/4/6	0	1/4/7	0	1/4/8	0
2/1/1	0	2/1/2	0	2/1/3	0	2/1/4	0	2/1/5	0	2/1/6	0	2/1/7	0	2/1/8	0
2/2/1	0	2/2/2	0	2/2/3	0	2/2/4	0	2/2/5	0	2/2/6	0	2/2/7	0	2/2/8	0
2/3/1	0	2/3/2	0	2/3/3	0	2/3/4	0	2/3/5	0	2/3/6	0	2/3/7	0	2/3/8	0
2/4/1	0	2/4/2	0	2/4/3	0	2/4/4	0	2/4/5	0	2/4/6	0	2/4/7	0	2/4/8	0
3/1/1	0	3/1/2	0	3/1/3	0	3/1/4	0	3/1/5	0	3/1/6	0	3/1/7	0	3/1/8	0
3/2/1	0	3/2/2	0	3/2/3	0	3/2/4	0	3/2/5	0	3/2/6	0	3/2/7	0	3/2/8	0
3/3/1	0	3/3/2	0	3/3/3	0	3/3/4	0	3/3/5	0	3/3/6	0	3/3/7	0	3/3/8	0
3/4/1	0	3/4/2	0	3/4/3	0	3/4/4	0	3/4/5	0	3/4/6	0	3/4/7	0	3/4/8	0
4/1/1	0	4/1/2	0	4/1/3	0	4/1/4	0	4/1/5	0	4/1/6	0	4/1/7	0	4/1/8	0
4/2/1	0	4/2/2	0	4/2/3	0	4/2/4	0	4/2/5	0	4/2/6	0	4/2/7	0	4/2/8	0
4/3/1	0	4/3/2	0	4/3/3	0	4/3/4	0	4/3/5	0	4/3/6	0	4/3/7	0	4/3/8	0
4/4/1	0	4/4/2	0	4/4/3	0	4/4/4	0	4/4/5	0	4/4/6	0	4/4/7	0	4/4/8	0
5/1/1	0	5/1/2	0	5/1/3	0	5/1/4	0	5/1/5	0	5/1/6	0	5/1/7	0	5/1/8	0
5/2/1	0	5/2/2	0	5/2/3	0	5/2/4	0	5/2/5	0	5/2/6	0	5/2/7	0	5/2/8	0
5/3/1	0	5/3/2	0	5/3/3	0	5/3/4	0	5/3/5	0	5/3/6	0	5/3/7	0	5/3/8	0
5/4/1	0	5/4/2	0	5/4/3	0	5/4/4	0	5/4/5	0	5/4/6	0	5/4/7	0	5/4/8	0
6/1/1	0	6/1/2	0	6/1/3	0	6/1/4	0	6/1/5	0	6/1/6	0	6/1/7	0	6/1/8	0
6/2/1	0	6/2/2	0	6/2/3	0	6/2/4	0	6/2/5	0	6/2/6	0	6/2/7	0	6/2/8	0
6/3/1	0	6/3/2	0	6/3/3	0	6/3/4	0	6/3/5	0	6/3/6	0	6/3/7	0	6/3/8	0
6/4/1	0	6/4/2	0	6/4/3	0	6/4/4	0	6/4/5	0	6/4/6	0	6/4/7	0	6/4/8	0

7/1/1	0	7/1/2	0	7/1/3	0	7/1/4	0	7/1/5	0	7/1/6	0	7/1/7	0	7/1/8	0
7/2/1	0	7/2/2	0	7/2/3	0	7/2/4	0	7/2/5	0	7/2/6	0	7/2/7	0	7/2/8	0
7/3/1	0	7/3/2	0	7/3/3	0	7/3/4	0	7/3/5	0	7/3/6	0	7/3/7	0	7/3/8	0
7/4/1	0	7/4/2	0	7/4/3	0	7/4/4	0	7/4/5	0	7/4/6	0	7/4/7	0	7/4/8	0
8/1/1	0	8/1/2	0	8/1/3	0	8/1/4	0	8/1/5	0	8/1/6	0	8/1/7	0	8/1/8	0
8/2/1	0	8/2/2	0	8/2/3	0	8/2/4	0	8/2/5	0	8/2/6	0	8/2/7	0	8/2/8	0
8/3/1	0	8/3/2	0	8/3/3	0	8/3/4	0	8/3/5	0	8/3/6	0	8/3/7	0	8/3/8	0
8/4/1	0	8/4/2	0	8/4/2	0	8/4/4	0	8/4/5	0	8/4/6	0	8/4/7	0	8/4/8	0

Cycles per Sample Period	0
Split Mode	Queuing Detectors
Min Q's/FO's to Select Split	0

Phase 1 to 8

Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off
Split Phase Assoc	off	off	off	off	off	off	off	off

Local 22

HP@Grove

Page 19

Phase 1 Queue Detectors	0	0
Phase 2 Queue Detectors	0	0
Phase 3 Queue Detectors	0	0
Phase 4 Queue Detectors	0	0
Phase 5 Queue Detectors	0	0
Phase 6 Queue Detectors	0	0
Phase 7 Queue Detectors	0	0
Phase 8 Queue Detectors	0	0

Phase 1 Queue Det Delays	0.0	0.0
Phase 2 Queue Det Delays	0.0	0.0
Phase 3 Queue Det Delays	0.0	0.0
Phase 4 Queue Det Delays	0.0	0.0
Phase 5 Queue Det Delays	0.0	0.0
Phase 6 Queue Det Delays	0.0	0.0
Phase 7 Queue Det Delays	0.0	0.0
Phase 8 Queue Det Delays	0.0	0.0

Split Inhibits (Spl 2 to 4) ,21,1,Split Inhibits Cyc %d/Off %d
Split Inhibits (Spl 2 to 4) ,21,1,Split Inhibits Cyc %d/Off %d

APPENDIX D TRAFFIC COUNT DATA

Wells + Associates, Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Pinkard Elden Street W+A JOB NO: 8609 INTERSECTION: Elden St. & Site Entrance LOCATION: Fairfax County,VA										DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										SOUTHBOUND ROAD: Placa Driveway NORTHBOUND ROAD: Site Entrance WESTBOUND ROAD: Elden Street EASTBOUND ROAD: Elden Street									
Time Period	Southbound Placa Driveway					PHF	Westbound Elden Street					PHF	Northbound Site Entrance					PHF	Eastbound Elden Street					PHF	North & South	East & West	Total		
	Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total						
15 Minute Volumes																													
6:00 AM - 6:15 AM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		1	0	0	0	1		1	3	4		
6:15 AM - 6:30 AM	1	0	0	0	1		1	0	0	0	1		1	0	0	0	1		0	0	0	0	0		2	1	3		
6:30 AM - 6:45 AM	0	0	0	0	0		0	0	1	0	1		1	0	1	0	2		1	0	0	0	1		2	2	4		
6:45 AM - 7:00 AM	3	0	0	0	3		3	0	0	0	3		0	0	0	0	0		1	0	0	0	1		3	4	7		
7:00 AM - 7:15 AM	0	0	0	0	0		2	0	0	0	2		1	0	0	0	1		0	0	0	0	0		1	2	3		
7:15 AM - 7:30 AM	2	0	0	0	2		0	0	0	0	0		1	0	1	0	2		0	0	0	0	0		4	0	4		
7:30 AM - 7:45 AM	0	0	0	0	0		4	0	0	0	4		1	0	0	0	1		0	0	0	0	0		1	4	5		
7:45 AM - 8:00 AM	1	0	0	0	1		3	0	1	0	4		2	0	0	0	2		2	0	0	0	2		3	6	9		
8:00 AM - 8:15 AM	0	0	0	0	0		3	0	0	0	3		1	0	0	0	1		2	0	0	0	2		1	5	6		
8:15 AM - 8:30 AM	2	0	0	0	2		5	0	0	0	5		5	0	2	0	7		0	0	0	0	0		9	5	14		
8:30 AM - 8:45 AM	4	0	0	0	4		5	0	0	0	5		2	0	0	0	2		0	0	0	0	0		6	5	11		
8:45 AM - 9:00 AM	4	0	0	0	4		9	0	0	0	9		2	0	1	0	3		0	0	0	0	0		7	9	16		
4:00 PM - 4:15 PM	4	0	0	0	4		3	0	0	0	3		3	0	1	0	4		0	0	0	0	0		8	3	11		
4:15 PM - 4:30 PM	1	0	0	0	1		6	0	0	0	6		1	0	2	0	3		2	0	1	0	3		4	9	13		
4:30 PM - 4:45 PM	2	0	0	0	2		7	0	0	0	7		1	0	0	0	1		0	0	0	0	0		3	7	10		
4:45 PM - 5:00 PM	2	0	0	0	2		6	0	0	0	6		3	0	0	0	3		3	0	0	0	3		5	9	14		
5:00 PM - 5:15 PM	4	0	0	0	4		5	0	0	0	5		4	0	0	0	4		1	0	0	0	1		8	6	14		
5:15 PM - 5:30 PM	0	0	0	0	0		4	0	0	0	4		1	0	1	0	2		2	0	0	0	2		2	6	8		
5:30 PM - 5:45 PM	2	0	0	0	2		6	0	0	0	6		2	0	0	0	2		1	0	0	0	1		4	7	11		
5:45 PM - 6:00 PM	3	0	0	0	3		7	0	0	0	7		0	0	0	0	0		4	0	0	0	4		3	11	14		
6:00 PM - 6:15 PM	2	0	0	0	2		9	0	0	0	9		0	0	0	0	0		0	0	0	0	0		2	9	11		
6:15 PM - 6:30 PM	1	0	0	0	1		2	0	1	0	3		2	0	0	0	2		1	0	0	0	1		3	4	7		
6:30 PM - 6:45 PM	2	0	0	0	2		1	0	1	0	2		2	0	1	0	3		2	0	0	0	2		5	4	9		
6:45 PM - 7:00 PM	2	0	0	0	2		2	0	0	0	2		1	0	0	0	1		2	0	0	0	2		3	4	7		
Total	43	0	0	0	43		95	0	4	0	99		37	0	10	0	47		25	0	1	0	26		90	125	215		
One Hour Volumes																													
6:00 AM - 7:00 AM	5	0	0	0	5	0.417	6	0	1	0	7	0.583	2	0	1	0	3	0.375	3	0	0	0	3	0.75	8	10	18		
6:15 AM - 7:15 AM	4	0	0	0	4	0.333	6	0	1	0	7	0.583	3	0	1	0	4	0.5	2	0	0	0	2	0.5	8	9	17		
6:30 AM - 7:30 AM	5	0	0	0	5	0.417	5	0	1	0	6	0.5	3	0	2	0	5	0.625	2	0	0	0	2	0.5	10	8	18		
6:45 AM - 7:45 AM	5	0	0	0	5	0.417	9	0	0	0	9	0.563	3	0	1	0	4	0.5	1	0	0	0	1	0.25	9	10	19		
7:00 AM - 8:00 AM	3	0	0	0	3	0.375	9	0	1	0	10	0.625	5	0	1	0	6	0.75	2	0	0	0	2	0.25	9	12	21		
7:15 AM - 8:15 AM	3	0	0	0	3	0.375	10	0	1	0	11	0.688	5	0	1	0	6	0.75	4	0	0	0	4	0.5	9	15	24		
7:30 AM - 8:30 AM	3	0	0	0	3	0.375	15	0	1	0	16	0.8	9	0	2	0	11	0.393	4	0	0	0	4	0.5	14	20	34		
7:45 AM - 8:45 AM	7	0	0	0	7	0.438	16	0	1	0	17	0.85	10	0	2	0	12	0.429	4	0	0	0	4	0.5	19	21	40		
8:00 AM - 9:00 AM	10	0	0	0	10	0.625	22	0	0	0	22	0.611	10	0	3	0	13	0.464	2	0	0	0	2	0.25	23	24	47		
4:00 PM - 5:00 PM	9	0	0	0	9	0.563	22	0	0	0	22	0.786	8	0	3	0	11	0.688	5	0	1	0	6	0.5	20	28	48		
4:15 PM - 5:15 PM	9	0	0	0	9	0.563	24	0	0	0	24	0.857	9	0	2	0	11	0.688	6	0	1	0	7	0.583	20	31	51		
4:30 PM - 5:30 PM	8	0	0	0	8	0.5	22	0	0	0	22	0.786	9	0	1	0	10	0.625	6	0	0	0	6	0.5	18	28	46		
4:45 PM - 5:45 PM	8	0	0	0	8	0.5	21	0	0	0	21	0.875	10	0	1	0	11	0.688	7	0	0	0	7	0.583	19	28	47		
5:00 PM - 6:00 PM	9	0	0	0	9	0.563	22	0	0	0	22	0.786	7	0	1	0	8	0.5	8	0	0	0	8	0.5	17	30	47		
5:15 PM - 6:15 PM	7	0	0	0	7	0.583	26	0	0	0	26	0.722	3	0	1	0	4	0.5	7	0	0	0	7	0.438	11	33	44		
5:30 PM - 6:30 PM	8	0	0	0	8	0.667	24	0	1	0	25	0.694	4	0	0	0	4	0.5	6	0	0	0	6	0.375	12	31	43		
5:45 PM - 6:45 PM	8	0	0	0	8	0.667	19	0	2	0	21	0.583	4	0	1	0	5	0.417	7	0	0	0	7	0.438	13	28	41		
6:00 PM - 7:00 PM	7	0	0	0	7	0.875	14	0	2	0	16	0.444	5	0	1	0	6	0.5	5	0	0	0	5	0.625	13	21	34		

Tyson, Virginia

Pedestrian Volume Survey

PROJECT: Pinkard Elden Street W + A JOB NO: 8609 INTERSECTION: Elden St. & Site Entrance LOCATION: Fairfax County, VA DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										Placa Driveway Elden Street Site Entrance North				
Time Period		Movement												
		1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7 + 8	Total
15 Minute Volumes														
6:00 AM	- 6:15 AM									0	0	0	0	0
6:15 AM	- 6:30 AM									0	0	0	0	0
6:30 AM	- 6:45 AM									0	0	0	0	0
6:45 AM	- 7:00 AM	1				1		1		1	0	2	0	3
7:00 AM	- 7:15 AM									0	0	0	0	0
7:15 AM	- 7:30 AM	1						1		1	0	1	0	2
7:30 AM	- 7:45 AM									0	0	0	0	0
7:45 AM	- 8:00 AM									0	0	0	0	0
8:00 AM	- 8:15 AM									0	0	0	0	0
8:15 AM	- 8:30 AM									0	0	0	0	0
8:30 AM	- 8:45 AM									0	0	0	0	0
8:45 AM	- 9:00 AM									0	0	0	0	0
4:00 PM	- 4:15 PM		1			1				1	0	1	0	2
4:15 PM	- 4:30 PM					2		3		0	0	5	0	5
4:30 PM	- 4:45 PM									0	0	0	0	0
4:45 PM	- 5:00 PM		3			2				3	0	2	0	5
5:00 PM	- 5:15 PM									0	0	0	0	0
5:15 PM	- 5:30 PM	1								1	0	0	0	1
5:30 PM	- 5:45 PM						1			0	0	1	0	1
5:45 PM	- 6:00 PM									0	0	0	0	0
6:00 PM	- 6:15 PM									0	0	0	0	0
6:15 PM	- 6:30 PM									0	0	0	0	0
6:30 PM	- 6:45 PM									0	0	0	0	0
6:45 PM	- 7:00 PM									0	0	0	0	0
Total		3	4	0	0	6	6	0	0	7	0	12	0	15
One Hour Volumes														
6:00 AM	- 7:00 AM	1	0	0	0	1	1	0	0	1	0	2	0	3
6:15 AM	- 7:15 AM	1	0	0	0	1	1	0	0	1	0	2	0	3
6:30 AM	- 7:30 AM	2	0	0	0	1	2	0	0	2	0	3	0	5
6:45 AM	- 7:45 AM	2	0	0	0	1	2	0	0	2	0	3	0	5
7:00 AM	- 8:00 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
7:15 AM	- 8:15 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
7:30 AM	- 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	- 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	- 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	- 5:00 PM	0	4	0	0	5	3	0	0	4	0	8	0	12
4:15 PM	- 5:15 PM	0	3	0	0	4	3	0	0	3	0	7	0	10
4:30 PM	- 5:30 PM	1	3	0	0	2	0	0	0	4	0	2	0	6
4:45 PM	- 5:45 PM	1	3	0	0	2	1	0	0	4	0	3	0	7
5:00 PM	- 6:00 PM	1	0	0	0	0	1	0	0	1	0	1	0	2
5:15 PM	- 6:15 PM	1	0	0	0	0	1	0	0	1	0	1	0	2
5:30 PM	- 6:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	1
5:45 PM	- 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	- 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Pinkard Elden Street				DATE: 9/16/2021				SOUTHBOUND ROAD: Placa Driveway											
W+A JOB NO: 8609				DAY: Thursday				NORTHBOUND ROAD: Site Entrance											
INTERSECTION: Elden St. & Site Entrance				WEATHER: clear AM, rain PM				WESTBOUND ROAD: Elden Street											
LOCATION: Fairfax County,VA				COUNTED BY: Agan				EASTBOUND ROAD: Elden Street											
				INPUTED BY: Agan															
Time Period	Southbound Placa Driveway				Westbound Elden Street				Northbound Site Entrance				Eastbound Elden Street				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0			1	1				0				0	0	1	1
6:45 AM - 7:00 AM				0				0				0		1		1	0	1	1
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0		1		1	0	1	1
7:30 AM - 7:45 AM				0				0				0				0	0	0	0
7:45 AM - 8:00 AM				0				0				0		1		1	0	1	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0		1		1	0	1	1
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0		2		2	0	2	2
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0				0	0	0	0
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0		2		2	0	2	2
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	2	6	0	8	0	9	9
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
6:15 AM - 7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
6:30 AM - 7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	0	3	3
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2

Wells + Associates, Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Pinkard Elden Street W+A JOB NO: 8609 INTERSECTION: Herndon Pkwy. & Elden St. LOCATION: Fairfax County,VA										DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										SOUTHBOUND ROAD: Herndon Parkway NORTHBOUND ROAD: Herndon Parkway WESTBOUND ROAD: Elden Street EASTBOUND ROAD: Elden Street									
Time Period	Southbound Herndon Parkway					PHF	Westbound Elden Street					PHF	Northbound Herndon Parkway					PHF	Eastbound Elden Street					PHF	North & South	East & West	Total		
	Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total						
15 Minute Volumes																													
6:00 AM - 6:15 AM	3	13	26	0	42		9	34	14	0	57		15	3	2	0	20		1	39	2	0	42		62	99	161		
6:15 AM - 6:30 AM	4	15	22	0	41		8	43	23	0	74		12	2	0	0	14		2	64	2	0	68		55	142	197		
6:30 AM - 6:45 AM	5	21	35	0	61		12	53	14	0	79		10	4	5	0	19		3	55	1	0	59		80	138	218		
6:45 AM - 7:00 AM	9	28	33	0	70		14	39	25	0	78		14	8	3	0	25		1	68	1	0	70		95	148	243		
7:00 AM - 7:15 AM	14	37	42	0	93		19	69	32	0	120		18	17	4	0	39		5	74	5	0	84		132	204	336		
7:15 AM - 7:30 AM	8	41	56	0	105		25	83	37	0	145		25	18	6	0	49		5	93	3	0	101		154	246	400		
7:30 AM - 7:45 AM	9	50	60	0	119		25	83	25	0	133		25	18	6	0	49		2	108	6	0	116		168	249	417		
7:45 AM - 8:00 AM	12	58	65	0	135		31	94	34	0	159		28	16	5	0	49		8	110	7	0	125		184	284	468		
8:00 AM - 8:15 AM	14	49	64	0	127		22	73	26	0	121		16	21	10	0	47		8	118	7	0	133		174	254	428		
8:15 AM - 8:30 AM	9	48	47	0	104		28	81	39	0	148		28	15	5	0	48		9	114	8	0	131		152	279	431		
8:30 AM - 8:45 AM	14	47	52	0	113		36	84	38	0	158		28	22	13	0	63		10	96	11	0	117		176	275	451		
8:45 AM - 9:00 AM	13	33	44	0	90		31	100	37	0	168		36	18	8	0	62		4	101	8	0	113		152	281	433		
4:00 PM - 4:15 PM	10	22	42	0	74		50	118	27	0	195		33	38	13	0	84		9	134	11	0	154		158	349	507		
4:15 PM - 4:30 PM	10	21	29	0	60		50	108	34	0	192		39	41	12	0	92		10	117	13	0	140		152	332	484		
4:30 PM - 4:45 PM	15	24	41	0	80		50	127	34	0	211		44	36	16	0	96		16	173	22	0	211		176	422	598		
4:45 PM - 5:00 PM	11	22	50	0	83		48	143	29	0	220		37	37	24	0	98		8	159	21	0	188		181	408	589		
5:00 PM - 5:15 PM	20	22	42	0	84		53	155	28	0	236		44	56	13	0	113		8	125	18	0	151		197	387	584		
5:15 PM - 5:30 PM	25	26	44	0	95		45	157	30	0	232		36	44	16	0	96		10	165	15	0	190		191	422	613		
5:30 PM - 5:45 PM	21	39	43	0	103		52	131	34	0	217		33	44	18	0	95		23	122	13	0	158		198	375	573		
5:45 PM - 6:00 PM	20	28	35	0	83		46	126	38	0	210		29	34	21	0	84		20	152	13	0	185		167	395	562		
6:00 PM - 6:15 PM	23	26	43	0	92		43	128	35	0	206		32	48	16	0	96		16	118	12	0	146		188	352	540		
6:15 PM - 6:30 PM	18	24	31	0	73		39	119	31	0	189		35	30	14	0	79		12	131	20	0	163		152	352	504		
6:30 PM - 6:45 PM	21	19	28	0	68		25	106	20	0	151		28	20	7	0	55		9	121	17	0	147		123	298	421		
6:45 PM - 7:00 PM	14	15	26	0	55		20	115	19	0	154		23	21	12	0	56		6	138	16	0	160		111	314	425		
Total	322	728	1000	0	2050		781	2369	703	0	3853		668	611	249	0	1528		205	2695	252	0	3152		3578	7005	10583		
One Hour Volumes																													
6:00 AM - 7:00 AM	21	77	116	0	214	0.764	43	169	76	0	288	0.911	51	17	10	0	78	0.78	7	226	6	0	239	0.854	292	527	819		
6:15 AM - 7:15 AM	32	101	132	0	265	0.712	53	204	94	0	351	0.731	54	31	12	0	97	0.622	11	261	9	0	281	0.836	362	632	994		
6:30 AM - 7:30 AM	36	127	166	0	329	0.783	70	244	108	0	422	0.728	67	47	18	0	132	0.673	14	290	10	0	314	0.777	461	736	1197		
6:45 AM - 7:45 AM	40	156	191	0	387	0.813	83	274	119	0	476	0.821	82	61	19	0	162	0.827	13	343	15	0	371	0.8	549	847	1396		
7:00 AM - 8:00 AM	43	186	223	0	452	0.837	100	329	128	0	557	0.876	96	69	21	0	186	0.949	20	385	21	0	426	0.852	638	983	1621		
7:15 AM - 8:15 AM	43	198	245	0	486	0.9	103	333	122	0	558	0.877	94	73	27	0	194	0.99	23	429	23	0	475	0.893	680	1033	1713		
7:30 AM - 8:30 AM	44	205	236	0	485	0.898	106	331	124	0	561	0.882	97	70	26	0	193	0.985	27	450	28	0	505	0.949	678	1066	1744		
7:45 AM - 8:45 AM	49	202	228	0	479	0.887	117	332	137	0	586	0.921	100	74	33	0	207	0.821	35	438	33	0	506	0.951	686	1092	1778		
8:00 AM - 9:00 AM	50	177	207	0	434	0.854	117	338	140	0	595	0.885	108	76	36	0	220	0.873	31	429	34	0	494	0.929	654	1089	1743		
4:00 PM - 5:00 PM	46	89	162	0	297	0.895	198	496	124	0	818	0.93	153	152	65	0	370	0.944	43	583	67	0	693	0.821	667	1511	2178		
4:15 PM - 5:15 PM	56	89	162	0	307	0.914	201	533	125	0	859	0.91	164	170	65	0	399	0.883	42	574	74	0	690	0.818	706	1549	2255		
4:30 PM - 5:30 PM	71	94	177	0	342	0.9	196	582	121	0	899	0.952	161	173	69	0	403	0.892	42	622	76	0	740	0.877	745	1639	2384		
4:45 PM - 5:45 PM	77	109	179	0	365	0.886	198	586	121	0	905	0.959	150	181	71	0	402	0.889	49	571	67	0	687	0.904	767	1592	2359		
5:00 PM - 6:00 PM	86	115	164	0	365	0.886	196	569	130	0	895	0.948	142	178	68	0	388	0.858	61	564	59	0	684	0.9	753	1579	2332		
5:15 PM - 6:15 PM	89	119	165	0	373	0.905	186	542	137	0	865	0.932	130	170	71	0	371	0.966	69	557	53	0	679	0.893	744	1544	2288		
5:30 PM - 6:30 PM	82	117	152	0	351	0.852	180	504	138	0	822	0.947	129	156	69	0	354	0.922	71	523	58	0	652	0.881	705	1474	2179		
5:45 PM - 6:45 PM	82	97	137	0	316	0.859	153	479	124	0	756	0.9	124	132	58	0	314	0.818	57	522	62	0	641	0.866	630	1397	2027		
6:00 PM - 7:00 PM	76	84	128	0	288	0.783	127	468	105	0	700	0.85	118	119	49	0	286	0.745	43	508	65	0	616	0.945	574	1316	1890		

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Pinkard Elden Street W + A JOB NO: 8609 INTERSECTION: Herndon Pkwy. & Elden St. LOCATION: Fairfax County,VA DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan Herndon Parkway 1 2 3 4 5 6 7 8 Elden Street Elden Street North ↑													
Time Period	Movement												
	1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7 + 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM									0	0	0	0	0
6:15 AM - 6:30 AM									0	0	0	0	0
6:30 AM - 6:45 AM									0	0	0	0	0
6:45 AM - 7:00 AM									0	0	0	0	0
7:00 AM - 7:15 AM	2						1	2	2	0	1	2	5
7:15 AM - 7:30 AM				2	1				0	2	1	0	3
7:30 AM - 7:45 AM		1		1			2		1	1	2	0	4
7:45 AM - 8:00 AM									0	0	0	0	0
8:00 AM - 8:15 AM									0	0	0	0	0
8:15 AM - 8:30 AM			3				3		0	3	3	0	6
8:30 AM - 8:45 AM			1		1		2		0	1	3	0	4
8:45 AM - 9:00 AM					2				0	0	2	0	2
4:00 PM - 4:15 PM									0	0	0	0	0
4:15 PM - 4:30 PM				7					0	7	0	0	7
4:30 PM - 4:45 PM							1		0	0	1	0	1
4:45 PM - 5:00 PM		2			2				2	0	2	0	4
5:00 PM - 5:15 PM	1		2	1					1	3	0	0	4
5:15 PM - 5:30 PM									0	0	0	0	0
5:30 PM - 5:45 PM									0	0	0	0	0
5:45 PM - 6:00 PM	1		2	1					1	3	0	0	4
6:00 PM - 6:15 PM									0	0	0	0	0
6:15 PM - 6:30 PM									0	0	0	0	0
6:30 PM - 6:45 PM				1					0	1	0	0	1
6:45 PM - 7:00 PM									0	0	0	0	0
Total	4	3	8	13	6	9	0	2	7	21	15	2	45
One Hour Volumes													
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	2	0	0	0	0	1	0	2	2	0	1	2	5
6:30 AM - 7:30 AM	2	0	0	2	1	1	0	2	2	2	2	2	8
6:45 AM - 7:45 AM	2	1	0	3	1	3	0	2	3	3	4	2	12
7:00 AM - 8:00 AM	2	1	0	3	1	3	0	2	3	3	4	2	12
7:15 AM - 8:15 AM	0	1	0	3	1	2	0	0	1	3	3	0	7
7:30 AM - 8:30 AM	0	1	3	1	0	5	0	0	1	4	5	0	10
7:45 AM - 8:45 AM	0	0	4	0	1	5	0	0	0	4	6	0	10
8:00 AM - 9:00 AM	0	0	4	0	3	5	0	0	0	4	8	0	12
4:00 PM - 5:00 PM	0	2	0	7	2	1	0	0	2	7	3	0	12
4:15 PM - 5:15 PM	1	2	2	8	2	1	0	0	3	10	3	0	16
4:30 PM - 5:30 PM	1	2	2	1	2	1	0	0	3	3	3	0	9
4:45 PM - 5:45 PM	1	2	2	1	2	0	0	0	3	3	2	0	8
5:00 PM - 6:00 PM	2	0	4	2	0	0	0	0	2	6	0	0	8
5:15 PM - 6:15 PM	1	0	2	1	0	0	0	0	1	3	0	0	4
5:30 PM - 6:30 PM	1	0	2	1	0	0	0	0	1	3	0	0	4
5:45 PM - 6:45 PM	1	0	2	2	0	0	0	0	1	4	0	0	5
6:00 PM - 7:00 PM	0	0	0	1	0	0	0	0	0	1	0	0	1

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Pinkard Elden Street				DATE: 9/16/2021				SOUTHBOUND ROAD: Herndon Parkway											
W+A JOB NO: 8609				DAY: Thursday				NORTHBOUND ROAD: Herndon Parkway											
INTERSECTION: Herndon Pkwy. & Elden St.				WEATHER: clear AM, rain PM				WESTBOUND ROAD: Elden Street											
LOCATION: Fairfax County,VA				COUNTED BY: Agan				EASTBOUND ROAD: Elden Street											
				INPUTED BY: Agan															
Time Period	Southbound Herndon Parkway				Westbound Elden Street				Northbound Herndon Parkway				Eastbound Elden Street				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0			1	1				0				0	0	1	1
6:45 AM - 7:00 AM				0				0				0	1			1	0	1	1
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM		1		1	2			0				0				0	2	0	2
7:30 AM - 7:45 AM				0				1	1			0				0	0	1	1
7:45 AM - 8:00 AM				1	1			0				0				0	1	0	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0				0	0	0	0
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0	2			2				0	2	0	2
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	0	1	2	3	0	1	1	2	2	0	0	2	1	0	0	1	5	3	8
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
6:15 AM - 7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
6:30 AM - 7:30 AM	0	1	1	2	0	1	0	1	0	0	0	0	1	0	0	1	2	2	4
6:45 AM - 7:45 AM	0	1	1	2	0	0	1	1	0	0	0	0	1	0	0	1	2	2	4
7:00 AM - 8:00 AM	0	1	2	3	0	0	1	1	0	0	0	0	0	0	0	0	3	1	4
7:15 AM - 8:15 AM	0	1	2	3	0	0	1	1	0	0	0	0	0	0	0	0	3	1	4
7:30 AM - 8:30 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	1	2
7:45 AM - 8:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2	0	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2	0	2
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2	0	2

Wells + Associates, Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Pinkard Elden Street W+A JOB NO: 8609 INTERSECTION: Herndon Pkwy. & Site Entr. LOCATION: Fairfax County,VA										DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										SOUTHBOUND ROAD: Herndon Parkway NORTHBOUND ROAD: Herndon Parkway WESTBOUND ROAD: 0 EASTBOUND ROAD: Site Entrance									
Time Period	Southbound Herndon Parkway					PHF	Westbound 0					PHF	Northbound Herndon Parkway					PHF	Eastbound Site Entrance					PHF	North & South	East & West	Total		
	Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total						
15 Minute Volumes																													
6:00 AM - 6:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
6:15 AM - 6:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
6:30 AM - 6:45 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	
6:45 AM - 7:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		0	2	2	2	
7:00 AM - 7:15 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		3	0	0	0	3		1	3	4	4	
7:15 AM - 7:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		0	2	2	2	
7:30 AM - 7:45 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		3	0	0	0	3		1	3	4	4	
7:45 AM - 8:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		0	1	1	1	
8:00 AM - 8:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		0	2	2	2	
8:15 AM - 8:30 AM	2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	0	2	
8:30 AM - 8:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		0	1	1	1	
8:45 AM - 9:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		0	1	1	1	
9:00 AM - 9:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
9:15 AM - 9:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
9:30 AM - 9:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
9:45 AM - 10:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
4:00 PM - 4:15 PM	3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		3	1	4	4	
4:15 PM - 4:30 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		0	1	1	1	
4:30 PM - 4:45 PM	2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		2	2	4	4	
4:45 PM - 5:00 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		1	2	3	3	
5:00 PM - 5:15 PM	3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		3	1	4	4	
5:15 PM - 5:30 PM	2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		2	1	3	3	
5:30 PM - 5:45 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		0	1	1	1	
5:45 PM - 6:00 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	1	
6:00 PM - 6:15 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1		1	1	2	2	
6:15 PM - 6:30 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		4	0	0	0	4		0	4	4	4	
6:30 PM - 6:45 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	1	
6:45 PM - 7:00 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2		1	2	3	3	
7:00 PM - 7:15 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
Total	20	0	0	0	20		0	0	0	0	0		0	0	0	0	0		31	0	0	0	31		20	31	51	51	
One Hour Volumes																													
6:00 AM - 7:00 AM	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.25	1	2	3	3	
6:15 AM - 7:15 AM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.417	2	5	7	7	
6:30 AM - 7:30 AM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.583	2	7	9	9	
6:45 AM - 7:45 AM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		10	0	0	0	10	0.833	2	10	12	12	
7:00 AM - 8:00 AM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		9	0	0	0	9	0.75	2	9	11	11	
7:15 AM - 8:15 AM	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		8	0	0	0	8	0.667	1	8	9	9	
7:30 AM - 8:30 AM	3	0	0	0	3	0.375	0	0	0	0	0		0	0	0	0	0		6	0	0	0	6	0.5	3	6	9	9	
7:45 AM - 8:45 AM	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.5	2	4	6	6	
8:00 AM - 9:00 AM	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.5	2	4	6	6	
8:15 AM - 9:15 AM	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.5	2	2	4	4	
8:30 AM - 9:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.5	0	2	2	2	
8:45 AM - 9:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	0	1	1	1	
9:00 AM - 10:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
3:15 PM - 4:15 PM	3	0	0	0	3	0.25	0	0	0	0	0		0	0	0	0	0		1	0	0	0	1	0.25	3	1	4	4	
3:30 PM - 4:30 PM	3	0	0	0	3	0.25	0	0	0	0	0		0	0	0	0	0		2	0	0	0	2	0.5	3	2	5	5	
3:45 PM - 4:45 PM	5	0	0	0	5	0.417	0	0	0	0	0		0	0	0	0	0		4	0	0	0	4	0.5	5	4	9	9	
4:00 PM - 5:00 PM	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		6	0	0	0	6	0.75	6	6	12	12	
4:15 PM - 5:15 PM	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		6	0	0	0	6	0.75	6	6	12	12	
4:30 PM - 5:30 PM	8	0	0	0	8	0.667	0	0	0	0	0		0	0	0	0	0		6	0	0	0	6	0.75	8	6	14	14	
4:45 PM - 5:45 PM	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.625	6	5	11	11	
5:00 PM - 6:00 PM	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		3	0	0	0	3	0.75	6	3	9	9	
5:15 PM - 6:15 PM	4	0	0	0	4	0.5	0	0	0	0	0		0	0	0	0	0		3	0	0	0	3	0.75	4	3	7	7	
5:30 PM - 6:30 PM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		6	0	0	0	6	0.375	2	6	8	8	
5:45 PM - 6:45 PM	3	0	0	0	3	0.75	0	0	0	0	0		0	0	0	0	0		5	0	0	0	5	0.313	3	5	8	8	
6:00 PM - 7:00 PM	3	0	0	0	3	0.75	0	0	0	0	0		0	0	0	0	0		7	0	0	0	7	0.438	3	7	10	10	

Attachment #10

Tyson, Virginia

Pedestrian Volume Survey

[illegible]

[illegible]

Wells + Associates, Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Pinkard Elden Street W+A JOB NO: 8609 INTERSECTION: Herndon Pkwy. & Grove St. LOCATION: Fairfax County,VA										DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										SOUTHBOUND ROAD: Herndon Parkway NORTHBOUND ROAD: Herndon Parkway WESTBOUND ROAD: 0 EASTBOUND ROAD: Grove Street									
Time Period	Southbound Herndon Parkway					PHF	Westbound 0					PHF	Northbound Herndon Parkway					PHF	Eastbound Grove Street					PHF	North & South	East & West	Total		
	Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total						
15 Minute Volumes																													
6:00 AM - 6:15 AM	8	16	0	0	24		0	0	0	0	0		0	22	41	0	63		2	0	0	0	2		87	2	89		
6:15 AM - 6:30 AM	17	20	0	0	37		0	0	0	0	0		0	14	44	0	58		3	0	1	0	4		95	4	99		
6:30 AM - 6:45 AM	10	25	0	0	35		0	0	0	0	0		0	19	47	0	66		7	0	0	0	7		101	7	108		
6:45 AM - 7:00 AM	21	38	0	0	59		0	0	0	0	0		0	23	47	0	70		6	0	1	0	7		129	7	136		
7:00 AM - 7:15 AM	27	37	0	0	64		0	0	0	0	0		0	26	59	0	85		13	0	2	0	15		149	15	164		
7:15 AM - 7:30 AM	29	48	0	0	77		0	0	0	0	0		0	33	69	0	102		12	0	1	0	13		179	13	192		
7:30 AM - 7:45 AM	19	59	0	0	78		0	0	0	0	0		0	49	44	0	93		14	0	4	0	18		171	18	189		
7:45 AM - 8:00 AM	19	78	0	0	97		0	0	0	0	0		0	55	66	0	121		6	0	4	0	10		218	10	228		
8:00 AM - 8:15 AM	19	61	0	0	80		0	0	0	0	0		0	41	66	0	107		10	0	4	0	14		187	14	201		
8:15 AM - 8:30 AM	21	75	0	0	96		0	0	0	0	0		0	60	66	0	126		10	0	3	0	13		222	13	235		
8:30 AM - 8:45 AM	19	62	0	0	81		0	0	0	0	0		0	62	75	0	137		19	0	1	0	20		218	20	238		
8:45 AM - 9:00 AM	13	69	0	0	82		0	0	0	0	0		0	63	64	0	127		23	0	4	0	27		209	27	236		
4:00 PM - 4:15 PM	7	48	0	0	55		0	0	0	0	0		0	63	11	0	74		82	0	22	0	104		129	104	233		
4:15 PM - 4:30 PM	3	65	0	0	68		0	0	0	0	0		0	78	16	0	94		76	0	15	0	91		162	91	253		
4:30 PM - 4:45 PM	9	67	0	0	76		0	0	0	0	0		0	63	16	0	79		69	0	25	0	94		155	94	249		
4:45 PM - 5:00 PM	9	95	0	0	104		0	0	0	0	0		0	154	19	0	173		119	0	27	0	146		277	146	423		
5:00 PM - 5:15 PM	6	95	0	0	101		0	0	0	0	0		0	87	17	0	104		44	0	14	0	58		205	58	263		
5:15 PM - 5:30 PM	5	64	0	0	69		0	0	0	0	0		0	84	9	0	93		56	0	11	0	67		162	67	229		
5:30 PM - 5:45 PM	5	92	0	0	97		0	0	0	0	0		0	69	8	0	77		38	0	12	0	50		174	50	224		
5:45 PM - 6:00 PM	2	79	0	0	81		0	0	0	0	0		0	73	8	0	81		41	0	11	0	52		162	52	214		
6:00 PM - 6:15 PM	3	70	0	0	73		0	0	0	0	0		0	82	12	0	94		39	0	7	0	46		167	46	213		
6:15 PM - 6:30 PM	3	60	0	0	63		0	0	0	0	0		0	64	8	0	72		21	0	11	0	32		135	32	167		
6:30 PM - 6:45 PM	0	49	0	0	49		0	0	0	0	0		0	55	8	0	63		21	0	5	0	26		112	26	138		
6:45 PM - 7:00 PM	0	42	0	0	42		0	0	0	0	0		0	53	6	0	59		20	0	1	0	21		101	21	122		
Total	274	1414	0	0	1688		0	0	0	0	0		0	1392	826	0	2218		751	0	186	0	937		3906	937	4843		
One Hour Volumes																													
6:00 AM - 7:00 AM	56	99	0	0	155	0.657	0	0	0	0	0		0	78	179	0	257	0.918	18	0	2	0	20	0.714	412	20	432		
6:15 AM - 7:15 AM	75	120	0	0	195	0.762	0	0	0	0	0		0	82	197	0	279	0.821	29	0	4	0	33	0.55	474	33	507		
6:30 AM - 7:30 AM	87	148	0	0	235	0.763	0	0	0	0	0		0	101	222	0	323	0.792	38	0	4	0	42	0.7	558	42	600		
6:45 AM - 7:45 AM	96	182	0	0	278	0.891	0	0	0	0	0		0	131	219	0	350	0.858	45	0	8	0	53	0.736	628	53	681		
7:00 AM - 8:00 AM	94	222	0	0	316	0.814	0	0	0	0	0		0	163	238	0	401	0.829	45	0	11	0	56	0.778	717	56	773		
7:15 AM - 8:15 AM	86	246	0	0	332	0.856	0	0	0	0	0		0	178	245	0	423	0.874	42	0	13	0	55	0.764	755	55	810		
7:30 AM - 8:30 AM	78	273	0	0	351	0.905	0	0	0	0	0		0	205	242	0	447	0.887	40	0	15	0	55	0.764	798	55	853		
7:45 AM - 8:45 AM	78	276	0	0	354	0.912	0	0	0	0	0		0	218	273	0	491	0.896	45	0	12	0	57	0.713	845	57	902		
8:00 AM - 9:00 AM	72	267	0	0	339	0.883	0	0	0	0	0		0	226	271	0	497	0.907	62	0	12	0	74	0.685	836	74	910		
4:00 PM - 5:00 PM	28	275	0	0	303	0.728	0	0	0	0	0		0	358	62	0	420	0.607	346	0	89	0	435	0.745	723	435	1158		
4:15 PM - 5:15 PM	27	322	0	0	349	0.839	0	0	0	0	0		0	382	68	0	450	0.65	308	0	81	0	389	0.666	799	389	1188		
4:30 PM - 5:30 PM	29	321	0	0	350	0.841	0	0	0	0	0		0	388	61	0	449	0.649	288	0	77	0	365	0.625	799	365	1164		
4:45 PM - 5:45 PM	25	346	0	0	371	0.892	0	0	0	0	0		0	394	53	0	447	0.646	257	0	64	0	321	0.55	818	321	1139		
5:00 PM - 6:00 PM	18	330	0	0	348	0.861	0	0	0	0	0		0	313	42	0	355	0.853	179	0	48	0	227	0.847	703	227	930		
5:15 PM - 6:15 PM	15	305	0	0	320	0.825	0	0	0	0	0		0	308	37	0	345	0.918	174	0	41	0	215	0.802	665	215	880		
5:30 PM - 6:30 PM	13	301	0	0	314	0.809	0	0	0	0	0		0	288	36	0	324	0.862	139	0	41	0	180	0.865	638	180	818		
5:45 PM - 6:45 PM	8	258	0	0	266	0.821	0	0	0	0	0		0	274	36	0	310	0.824	122	0	34	0	156	0.75	576	156	732		
6:00 PM - 7:00 PM	6	221	0	0	227	0.777	0	0	0	0	0		0	254	34	0	288	0.766	101	0	24	0	125	0.679	515	125	640		

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Pinkard Elden Street W + A JOB NO: 8609 INTERSECTION: Herndon Pkwy. & Grove St. LOCATION: Fairfax County, VA DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan Herndon Parkway													
--	--	--	--	--	--	--	--	--	--	--	--	--	--

[illegible]

Wells + Associates, Inc

Tysons, Virginia

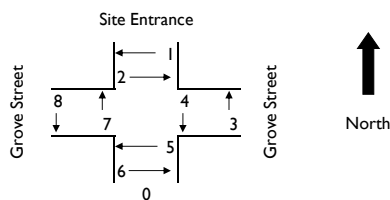
Turning Movement Count - Total Vehicles

PROJECT: Pinkard Elden Street W+A JOB NO: 8609 INTERSECTION: Grove St. & site Entr. LOCATION: Fairfax County,VA										DATE: 9/16/2021 DAY: Thursday WEATHER: clear AM, rain PM COUNTED BY: Agan INPUTED BY: Agan										SOUTHBOUND ROAD: Site Entrance NORTHBOUND ROAD: 0 WESTBOUND ROAD: Grove Street EASTBOUND ROAD: Grove Street									
Time Period	Southbound Site Entrance					PHF	Westbound Grove Street					PHF	Northbound 0					PHF	Eastbound Grove Street					PHF	North & South	East & West	Total		
	Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total		Right	Thru	Left	U-Turn	Total						
15 Minute Volumes																													
6:00 AM - 6:15 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1		
6:15 AM - 6:30 AM	1	0	0	0	1		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		1	1	2		
6:30 AM - 6:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0		
6:45 AM - 7:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0		
7:00 AM - 7:15 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1		
7:15 AM - 7:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0		
7:30 AM - 7:45 AM	3	0	0	0	3		2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		3	2	5		
7:45 AM - 8:00 AM	3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		3	0	3		
8:00 AM - 8:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0		
8:15 AM - 8:30 AM	2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	2		
8:30 AM - 8:45 AM	0	0	0	0	0		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	1	1		
8:45 AM - 9:00 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1		
4:00 PM - 4:15 PM	3	0	0	0	3		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		3	1	4		
4:15 PM - 4:30 PM	3	0	0	0	3		3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		3	3	6		
4:30 PM - 4:45 PM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1		
4:45 PM - 5:00 PM	1	0	0	0	1		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		1	1	2		
5:00 PM - 5:15 PM	2	0	0	0	2		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		2	1	3		
5:15 PM - 5:30 PM	2	0	0	0	2		3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		2	3	5		
5:30 PM - 5:45 PM	2	0	0	0	2		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		2	1	3		
5:45 PM - 6:00 PM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		1	2	3		
6:00 PM - 6:15 PM	0	0	0	0	0		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	1	1		
6:15 PM - 6:30 PM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		1	2	3		
6:30 PM - 6:45 PM	2	0	0	0	2		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		2	1	3		
6:45 PM - 7:00 PM	1	0	0	0	1		3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		1	3	4		
Total	31	0	0	0	31		23	0	0	0	23		0	0	0	0	0		0	0	0	0	0		31	23	54		
One Hour Volumes																													
6:00 AM - 7:00 AM	2	0	0	0	2	0.5	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		2	1	3		
6:15 AM - 7:15 AM	2	0	0	0	2	0.5	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		2	1	3		
6:30 AM - 7:30 AM	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1		
6:45 AM - 7:45 AM	4	0	0	0	4	0.333	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		4	2	6		
7:00 AM - 8:00 AM	7	0	0	0	7	0.583	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		7	2	9		
7:15 AM - 8:15 AM	6	0	0	0	6	0.5	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		6	2	8		
7:30 AM - 8:30 AM	8	0	0	0	8	0.667	2	0	0	0	2	0.25	0	0	0	0	0		0	0	0	0	0		8	2	10		
7:45 AM - 8:45 AM	5	0	0	0	5	0.417	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		5	1	6		
8:00 AM - 9:00 AM	3	0	0	0	3	0.375	1	0	0	0	1	0.25	0	0	0	0	0		0	0	0	0	0		3	1	4		
4:00 PM - 5:00 PM	8	0	0	0	8	0.667	5	0	0	0	5	0.417	0	0	0	0	0		0	0	0	0	0		8	5	13		
4:15 PM - 5:15 PM	7	0	0	0	7	0.583	5	0	0	0	5	0.417	0	0	0	0	0		0	0	0	0	0		7	5	12		
4:30 PM - 5:30 PM	6	0	0	0	6	0.75	5	0	0	0	5	0.417	0	0	0	0	0		0	0	0	0	0		6	5	11		
4:45 PM - 5:45 PM	7	0	0	0	7	0.875	6	0	0	0	6	0.5	0	0	0	0	0		0	0	0	0	0		7	6	13		
5:00 PM - 6:00 PM	7	0	0	0	7	0.875	7	0	0	0	7	0.583	0	0	0	0	0		0	0	0	0	0		7	7	14		
5:15 PM - 6:15 PM	5	0	0	0	5	0.625	7	0	0	0	7	0.583	0	0	0	0	0		0	0	0	0	0		5	7	12		
5:30 PM - 6:30 PM	4	0	0	0	4	0.5	6	0	0	0	6	0.75	0	0	0	0	0		0	0	0	0	0		4	6	10		
5:45 PM - 6:45 PM	4	0	0	0	4	0.5	6	0	0	0	6	0.75	0	0	0	0	0		0	0	0	0	0		4	6	10		
6:00 PM - 7:00 PM	4	0	0	0	4	0.5	7	0	0	0	7	0.583	0	0	0	0	0		0	0	0	0	0		4	7	11		

Tyson, Virginia

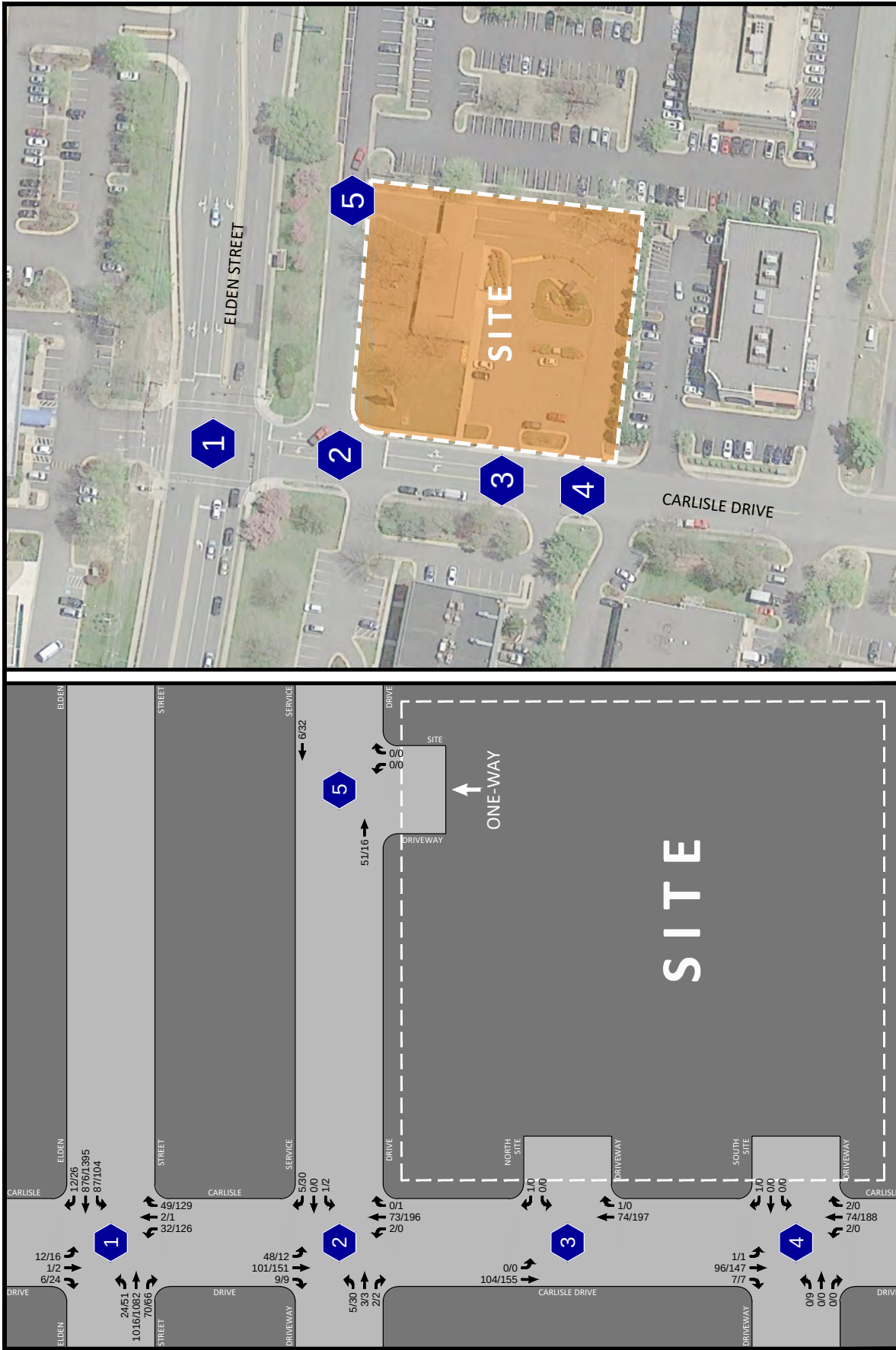
Pedestrian Volume Survey

PROJECT: Pinkard Elden Street
W + A JOB NO: 8609
INTERSECTION: Grove St. & site Entr.
LOCATION: Fairfax County, VA
DATE: 9/16/2021
DAY: Thursday
WEATHER: clear AM, rain PM
COUNTED BY: Agan
INPUTED BY: Agan

[illegible]

[illegible]

O:\PROJECTS\7001 - 7500\7375 VIRGINIA TIRE HERNDON\GRAPHICS\7375 - GRAPHICS (12.23.2017).DWG



 NORTH
 Virginia Tire & Auto
 Town of Herndon, Virginia

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: Virginia Tire & Auto Herndon					DATE: 10/19/2017					SOUTHBOUND ROAD: Carlisle Drive													
W+A JOB NO: 0					DAY: Thursday					NORTHBOUND ROAD: Carlisle Drive													
INTERSECTION: Elden St. & Carlisle Dr.					WEATHER: clear					WESTBOUND ROAD: Elden Street													
LOCATION: Fairfax County,VA					COUNTED BY: Matt & Ali					EASTBOUND ROAD: Elden Street													
INPUTED BY: agan																							
Time Period	Southbound Carlisle Drive					Westbound Elden Street					Northbound Carlisle Drive					Eastbound Elden Street					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	2	0	1	3		1	68	7	76		2	0	0	2		7	92	4	103		5	179	184
6:15 AM - 6:30 AM	2	0	6	8		1	85	5	91		1	0	0	1		1	96	1	98		9	189	198
6:30 AM - 6:45 AM	2	0	2	4		3	110	5	118		0	0	1	1		1	130	2	133		5	251	256
6:45 AM - 7:00 AM	1	1	0	2		0	125	3	128		0	0	4	4		5	134	4	143		6	271	277
7:00 AM - 7:15 AM	4	0	6	10		2	163	8	173		7	0	8	15		17	185	4	206		25	379	404
7:15 AM - 7:30 AM	2	0	2	4		2	177	23	202		13	1	10	24		9	175	1	185		28	387	415
7:30 AM - 7:45 AM	1	0	3	4		4	184	10	198		13	0	6	19		11	218	4	233		23	431	454
7:45 AM - 8:00 AM	1	0	1	2		4	221	14	239		13	0	4	17		5	235	5	245		19	484	503
8:00 AM - 8:15 AM	0	1	6	7		0	197	18	215		9	2	4	15		11	230	1	242		22	457	479
8:15 AM - 8:30 AM	4	0	2	6		8	201	15	224		12	0	8	20		18	291	6	315		26	539	565
8:30 AM - 8:45 AM	2	0	1	3		1	195	23	219		8	0	9	17		15	234	12	261		20	480	500
8:45 AM - 9:00 AM	0	0	3	3		3	283	21	307		16	0	8	24		18	261	5	284		27	591	618
Total	21	2	33	56		29	2009	152	2190		94	3	62	159		118	2281	49	2448		215	4638	4853
AM One Hour Volumes																							
6:00 AM - 7:00 AM	7	1	9	17	0.53	5	388	20	413	0.81	3	0	5	8	0.50	14	452	11	477	0.83	25	890	915
6:15 AM - 7:15 AM	9	1	14	24	0.60	6	483	21	510	0.74	8	0	13	21	0.35	24	545	11	580	0.70	45	1090	1135
6:30 AM - 7:30 AM	9	1	10	20	0.50	7	575	39	621	0.77	20	1	23	44	0.46	32	624	11	667	0.81	64	1288	1352
6:45 AM - 7:45 AM	8	1	11	20	0.50	8	649	44	701	0.87	33	1	28	62	0.65	42	712	13	767	0.82	82	1468	1550
7:00 AM - 8:00 AM	8	0	12	20	0.50	12	745	55	812	0.85	46	1	28	75	0.78	42	813	14	869	0.89	95	1681	1776
7:15 AM - 8:15 AM	4	1	12	17	0.61	10	779	65	854	0.89	48	3	24	75	0.78	36	858	11	905	0.92	92	1759	1851
7:30 AM - 8:30 AM	6	1	12	19	0.68	16	803	57	876	0.92	47	2	22	71	0.89	45	974	16	1035	0.82	90	1911	2001
7:45 AM - 8:45 AM	7	1	10	18	0.64	13	814	70	897	0.94	42	2	25	69	0.86	49	990	24	1063	0.84	87	1960	2047
8:00 AM - 9:00 AM	6	1	12	19	0.68	12	876	77	965	0.79	45	2	29	76	0.79	62	1016	24	1102	0.87	95	2067	2162
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	6	0	1	7		9	309	18	336		39	0	23	62		15	237	4	256		69	592	661
4:15 PM - 4:30 PM	3	0	5	8		10	310	22	342		23	1	31	55		22	258	7	287		63	629	692
4:30 PM - 4:45 PM	5	0	2	7		5	326	14	345		20	0	28	48		19	263	3	285		55	630	685
4:45 PM - 5:00 PM	1	0	1	2		7	322	21	350		26	0	23	49		18	257	10	285		51	635	686
5:00 PM - 5:15 PM	13	0	2	15		10	345	30	385		35	0	33	68		17	256	17	290		83	675	758
5:15 PM - 5:30 PM	3	1	3	7		4	366	25	395		35	0	29	64		9	290	13	312		71	707	778
5:30 PM - 5:45 PM	7	1	10	18		5	362	18	385		30	1	38	69		16	279	11	306		87	691	778
5:45 PM - 6:00 PM	7	1	10	18		6	285	27	318		7	0	11	18		6	184	3	193		36	511	547
6:00 PM - 6:15 PM	6	0	2	8		8	345	26	379		14	1	21	36		7	208	7	222		44	601	645
6:15 PM - 6:30 PM	4	0	0	4		4	338	12	354		24	0	16	40		23	208	10	241		44	595	639
6:30 PM - 6:45 PM	4	1	5	10		4	318	18	340		27	0	20	47		18	252	9	279		57	619	676
6:45 PM - 7:00 PM	3	0	1	4		1	304	20	325		26	0	16	42		12	273	9	294		46	619	665
Total	62	4	42	108		73	3930	251	4254		306	3	289	598		182	2965	103	3250		706	7504	8210
PM One Hour Volumes																							
4:00 PM - 5:00 PM	15	0	9	24	0.75	31	1267	75	1373	0.98	108	1	105	214	0.86	74	1015	24	1113	0.97	238	2486	2724
4:15 PM - 5:15 PM	22	0	10	32	0.53	32	1303	87	1422	0.92	104	1	115	220	0.81	76	1034	37	1147	0.99	252	2569	2821
4:30 PM - 5:30 PM	22	1	8	31	0.52	26	1359	90	1475	0.93	116	0	113	229	0.84	63	1066	43	1172	0.94	260	2647	2907
4:45 PM - 5:45 PM	24	2	16	42	0.58	26	1395	94	1515	0.96	126	1	123	250	0.91	60	1082	51	1193	0.96	292	2708	3000
5:00 PM - 6:00 PM	30	3	25	58	0.81	25	1358	100	1483	0.94	107	1	111	219	0.79	48	1009	44	1101	0.88	277	2584	2861
5:15 PM - 6:15 PM	23	3	25	51	0.71	23	1358	96	1477	0.93	86	2	99	187	0.68	38	961	34	1033	0.83	238	2510	2748
5:30 PM - 6:30 PM	24	2	22	48	0.67	23	1330	83	1436	0.93	75	2	86	163	0.59	52	879	31	962	0.79	211	2398	2609
5:45 PM - 6:45 PM	21	2	17	40	0.56	22	1286	83	1391	0.92	72	1	68	141	0.75	54	852	29	935	0.84	181	2326	2507
6:00 PM - 7:00 PM	17	1	8	26	0.65	17	1305	76	1398	0.92	91	1	73	165	0.88	60	941	35	1036	0.88	191	2434	2625

APPENDIX E EXISTING SYNCHRO WORKSHEETS

HCM Unsignalized Intersection Capacity Analysis

1: Site Entrance & Elden Street

2021 Existing
AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	485	2	0	414	3	10
Future Volume (Veh/h)	485	2	0	414	3	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	511	2	0	436	3	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				362		
pX, platoon unblocked					0.92	
vC, conflicting volume			513		730	256
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			513		534	256
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			1049		438	743
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	341	172	218	218	14	
Volume Left	0	0	0	0	3	
Volume Right	0	2	0	0	11	
cSH	1700	1700	1700	1700	646	
Volume to Capacity	0.20	0.10	0.13	0.13	0.02	
Queue Length 95th (ft)	0	0	0	0	2	
Control Delay (s)	0.0	0.0	0.0	0.0	10.7	
Lane LOS					B	
Approach Delay (s)	0.0		0.0		10.7	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			23.5%		ICU Level of Service	A
Analysis Period (min)			15			

Queues

2: Herndon Pkwy & Elden Street

2021 Existing

AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	35	498	144	349	123	35	78	105	240	265
v/c Ratio	0.13	0.78	0.59	0.40	0.16	0.06	0.05	0.13	0.31	0.15
Control Delay	31.3	62.1	43.5	45.2	6.4	14.8	23.1	3.5	16.2	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	62.1	43.5	45.2	6.4	14.8	23.1	3.5	16.2	18.1
Queue Length 50th (ft)	22	230	98	145	0	12	19	0	96	58
Queue Length 95th (ft)	42	265	132	171	25	34	41	28	183	107
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	226		443		176	213		250	153	
Base Capacity (vph)	360	928	305	1073	912	694	1631	780	771	1819
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.54	0.47	0.33	0.13	0.05	0.05	0.13	0.31	0.15
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2021 Existing
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	438	35	137	332	117	33	74	100	228	202	49
Future Volume (vph)	33	438	35	137	332	117	33	74	100	228	202	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	0.88	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3495		1769	3539	2727	1770	3539	1555	1764	3435	
Flt Permitted	0.54	1.00		0.19	1.00	1.00	0.59	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	1011	3495		358	3539	2727	1096	3539	1555	1194	3435	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	461	37	144	349	123	35	78	105	240	213	52
RTOR Reduction (vph)	0	5	0	0	0	93	0	0	58	0	11	0
Lane Group Flow (vph)	35	493	0	144	349	30	35	78	47	240	254	0
Confl. Peds. (#/hr)			6	6					4	4		
Confl. Bikes (#/hr)						1						
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	32.2	26.7		45.8	34.3	34.3	68.2	63.3	63.3	82.2	71.3	
Effective Green, g (s)	32.2	26.7		45.8	34.3	34.3	68.2	63.3	63.3	82.2	71.3	
Actuated g/C Ratio	0.23	0.19		0.33	0.24	0.24	0.49	0.45	0.45	0.59	0.51	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	262	666		249	867	668	557	1600	703	753	1749	
v/s Ratio Prot	0.01	c0.14		c0.05	0.10		0.00	0.02		c0.03	0.07	
v/s Ratio Perm	0.03			0.13		0.01	0.03		0.03	c0.16		
v/c Ratio	0.13	0.74		0.58	0.40	0.05	0.06	0.05	0.07	0.32	0.15	
Uniform Delay, d1	42.3	53.4		36.1	44.3	40.3	18.8	21.5	21.7	14.0	18.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.96	0.95	0.81	1.00	1.00	
Incremental Delay, d2	0.1	3.9		2.0	0.1	0.0	0.0	0.1	0.2	0.2	0.2	
Delay (s)	42.4	57.3		38.1	44.4	40.4	18.0	20.4	17.7	14.1	18.4	
Level of Service	D	E		D	D	D	B	C	B	B	B	
Approach Delay (s)		56.3			42.1			18.7			16.4	
Approach LOS		E			D			B			B	
Intersection Summary												
HCM 2000 Control Delay		36.5			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.46										
Actuated Cycle Length (s)		140.0			Sum of lost time (s)			24.0				
Intersection Capacity Utilization		68.1%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

3: Herndon Pkwy & Site Entrance

2021 Existing
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (veh/h)	0	4	0	238	372	2
Future Volume (Veh/h)	0	4	0	238	372	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	4	0	251	392	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.97	0.97	0.97			
vC, conflicting volume	518	197	394			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	446	115	318			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	525	890	1204			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	126	126	261	133	
Volume Left	0	0	0	0	0	
Volume Right	4	0	0	0	2	
cSH	890	1700	1700	1700	1700	
Volume to Capacity	0.00	0.07	0.07	0.15	0.08	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	9.1	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.1	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			20.3%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

4: Herndon Pkwy & Grove Street

2021 Existing

AM Peak Hour

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	13	65	282	235	353
v/c Ratio	0.09	0.23	0.31	0.07	0.13
Control Delay	56.1	9.6	3.3	2.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	9.6	3.3	2.1	6.6
Queue Length 50th (ft)	12	0	0	0	46
Queue Length 95th (ft)	30	32	111	43	108
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	556	493	1022	3239	2643
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.13	0.28	0.07	0.13
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

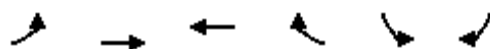
4: Herndon Pkwy & Grove Street

2021 Existing
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	62	271	226	267	72
Future Volume (vph)	12	62	271	226	267	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3426	
Flt Permitted	0.95	1.00	0.51	1.00	1.00	
Satd. Flow (perm)	1770	1583	952	3539	3426	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	12	65	282	235	278	75
RTOR Reduction (vph)	0	57	0	0	7	0
Lane Group Flow (vph)	13	8	282	235	346	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	7.1	17.9	120.9	120.9	104.1	
Effective Green, g (s)	7.1	17.9	120.9	120.9	104.1	
Actuated g/C Ratio	0.05	0.13	0.86	0.86	0.74	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	89	270	885	3056	2547	
v/s Ratio Prot	c0.01	0.00	c0.02	0.07	0.10	
v/s Ratio Perm		0.00	c0.25			
v/c Ratio	0.15	0.03	0.32	0.08	0.14	
Uniform Delay, d1	63.6	53.5	1.7	1.4	5.1	
Progression Factor	1.00	1.00	1.00	1.00	1.05	
Incremental Delay, d2	1.0	0.1	0.3	0.0	0.1	
Delay (s)	64.6	53.5	2.0	1.4	5.5	
Level of Service	E	D	A	A	A	
Approach Delay (s)	55.4			1.8	5.5	
Approach LOS	E			A	A	
Intersection Summary						
HCM 2000 Control Delay			7.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.32			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			53.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis5: Grove Street & Site Entrance

2021 Existing
AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (veh/h)	0	74	342	1	0	5
Future Volume (Veh/h)	0	74	342	1	0	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	77	356	1	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			239			
pX, platoon unblocked						
vC, conflicting volume	357				395	178
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	357				395	178
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1198				582	834
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	38	38	237	120	5	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	1	5	
cSH	1700	1700	1700	1700	834	
Volume to Capacity	0.02	0.02	0.14	0.07	0.01	
Queue Length 95th (ft)	0	0	0	0	0	
Control Delay (s)	0.0	0.0	0.0	0.0	9.3	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.3	
Approach LOS					A	
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			19.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Entrance & Elden Street

2021 Existing
PM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	723	6	0	722	2	9
Future Volume (Veh/h)	723	6	0	722	2	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	745	6	0	744	2	9
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				362		
pX, platoon unblocked					0.85	
vC, conflicting volume			758		1127	382
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			758		804	382
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	99
cM capacity (veh/h)			843		271	611
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	497	254	248	496	11	
Volume Left	0	0	0	0	2	
Volume Right	0	6	0	0	9	
cSH	1700	1700	843	1700	498	
Volume to Capacity	0.29	0.15	0.00	0.29	0.02	
Queue Length 95th (ft)	0	0	0	0	2	
Control Delay (s)	0.0	0.0	0.0	0.0	12.4	
Lane LOS					B	
Approach Delay (s)	0.0		0.0		12.4	
Approach LOS					B	
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			30.2%		ICU Level of Service	A
Analysis Period (min)			15			

Queues

2: Herndon Pkwy & Elden Street

2021 Existing

PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	684	125	600	202	71	178	166	182	170
v/c Ratio	0.33	0.82	0.57	0.62	0.23	0.12	0.13	0.23	0.29	0.11
Control Delay	27.3	51.7	35.1	41.4	4.8	21.8	31.2	12.9	17.5	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	51.7	35.1	41.4	4.8	21.8	31.2	12.9	17.5	13.9
Queue Length 50th (ft)	39	264	65	220	0	31	51	0	71	23
Queue Length 95th (ft)	65	306	97	259	29	68	88	79	133	53
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	226		443		176	213		250	153	
Base Capacity (vph)	259	1084	235	1150	1018	621	1398	716	635	1505
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.63	0.53	0.52	0.20	0.11	0.13	0.23	0.29	0.11
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2021 Existing
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	622	42	121	582	196	69	173	161	177	94	71
Future Volume (vph)	76	622	42	121	582	196	69	173	161	177	94	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	0.88	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1769	3503		1769	3539	2714	1770	3539	1559	1767	3311	
Flt Permitted	0.29	1.00		0.15	1.00	1.00	0.64	1.00	1.00	0.58	1.00	
Satd. Flow (perm)	537	3503		288	3539	2714	1200	3539	1559	1086	3311	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	78	641	43	125	600	202	71	178	166	182	97	73
RTOR Reduction (vph)	0	5	0	0	0	147	0	0	102	0	42	0
Lane Group Flow (vph)	78	679	0	125	600	55	71	178	64	182	128	0
Confl. Peds. (#/hr)	3		3	3		3			3	3		
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	36.1	29.5		42.3	32.6	32.6	52.4	46.3	46.3	61.2	50.7	
Effective Green, g (s)	36.1	29.5		42.3	32.6	32.6	52.4	46.3	46.3	61.2	50.7	
Actuated g/C Ratio	0.30	0.25		0.35	0.27	0.27	0.44	0.39	0.39	0.51	0.42	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	229	861		221	961	737	552	1365	601	613	1398	
v/s Ratio Prot	0.02	c0.19		c0.05	c0.17		0.01	0.05		c0.03	0.04	
v/s Ratio Perm	0.08			0.15		0.02	0.05		0.04	c0.13		
v/c Ratio	0.34	0.79		0.57	0.62	0.07	0.13	0.13	0.11	0.30	0.09	
Uniform Delay, d1	31.1	42.3		29.0	38.3	32.5	19.8	23.8	23.6	16.2	20.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.32	1.22	2.71	1.00	1.00	
Incremental Delay, d2	0.3	4.5		2.0	0.9	0.0	0.0	0.2	0.4	0.2	0.1	
Delay (s)	31.4	46.8		31.0	39.2	32.5	26.2	29.3	64.2	16.4	20.9	
Level of Service	C	D		C	D	C	C	C	E	B	C	
Approach Delay (s)		45.2			36.7			42.7			18.6	
Approach LOS		D			D			D			B	
Intersection Summary												
HCM 2000 Control Delay			37.8			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			80.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis3: Herndon Pkwy & Site Entrance

2021 Existing
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	6	0	463	265	8
Future Volume (Veh/h)	0	6	0	463	265	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	6	0	477	273	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.99					
vC, conflicting volume	516	140	281			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	493	140	281			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	501	882	1278			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	6	238	238	182	99	
Volume Left	0	0	0	0	0	
Volume Right	6	0	0	0	8	
cSH	882	1700	1700	1700	1700	
Volume to Capacity	0.01	0.14	0.14	0.11	0.06	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.1	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.1	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			17.6%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

4: Herndon Pkwy & Grove Street

2021 Existing

PM Peak Hour

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	95	362	80	449	411
v/c Ratio	0.44	0.62	0.11	0.16	0.18
Control Delay	53.0	15.9	4.5	4.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	15.9	4.5	4.2	7.6
Queue Length 50th (ft)	71	72	11	35	44
Queue Length 95th (ft)	103	121	34	77	80
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	590	716	841	2748	2283
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.51	0.10	0.16	0.18
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

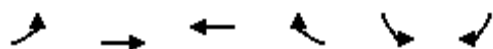
4: Herndon Pkwy & Grove Street

2021 Existing
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	81	308	68	382	322	27
Future Volume (vph)	81	308	68	382	322	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1769	3539	3494	
Flt Permitted	0.95	1.00	0.47	1.00	1.00	
Satd. Flow (perm)	1770	1583	883	3539	3494	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	95	362	80	449	379	32
RTOR Reduction (vph)	0	203	0	0	3	0
Lane Group Flow (vph)	95	159	80	449	408	0
Confl. Peds. (#/hr)			2			2
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	14.8	23.7	93.2	93.2	78.3	
Effective Green, g (s)	14.8	23.7	93.2	93.2	78.3	
Actuated g/C Ratio	0.12	0.20	0.78	0.78	0.65	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	218	391	751	2748	2279	
v/s Ratio Prot	0.05	c0.03	0.01	0.13	c0.12	
v/s Ratio Perm		0.07	0.07			
v/c Ratio	0.44	0.41	0.11	0.16	0.18	
Uniform Delay, d1	48.7	42.0	3.3	3.4	8.2	
Progression Factor	1.00	1.00	1.00	1.00	0.82	
Incremental Delay, d2	1.9	0.9	0.1	0.1	0.2	
Delay (s)	50.6	43.0	3.4	3.6	6.9	
Level of Service	D	D	A	A	A	
Approach Delay (s)	44.6			3.5	6.9	
Approach LOS	D			A	A	
Intersection Summary						
HCM 2000 Control Delay			17.9	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.26			
Actuated Cycle Length (s)			120.0	Sum of lost time (s)		18.0
Intersection Capacity Utilization			53.2%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis5: Grove Street & Site Entrance

2021 Existing
PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (veh/h)	0	389	88	7	0	7
Future Volume (Veh/h)	0	389	88	7	0	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	458	104	8	0	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			239			
pX, platoon unblocked						
vC, conflicting volume	112				337	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	112				337	56
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1475				633	999
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	229	229	69	43	8	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	8	8	
cSH	1700	1700	1700	1700	999	
Volume to Capacity	0.13	0.13	0.04	0.03	0.01	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	8.6	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		8.6	
Approach LOS					A	
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			14.1%		ICU Level of Service	A
Analysis Period (min)			15			

APPENDIX F
BACKGROUND FUTURE WITHOUT DEVELOPMENT (2026) SYNCHRO
WORKSHEETS

HCM Unsignalized Intersection Capacity Analysis

1: Site Entrance & Elden Street

2026 Background
AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Traffic Volume (veh/h)	510	12	0	435	0	13
Future Volume (Veh/h)	510	12	0	435	0	13
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	543	13	0	463	0	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				362		
pX, platoon unblocked					0.92	
vC, conflicting volume			556		781	278
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			556		578	278
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1011		409	719
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	362	194	232	232	14	
Volume Left	0	0	0	0	0	
Volume Right	0	13	0	0	14	
cSH	1700	1700	1700	1700	719	
Volume to Capacity	0.21	0.11	0.14	0.14	0.02	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	10.1	
Lane LOS					B	
Approach Delay (s)	0.0		0.0		10.1	
Approach LOS					B	
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			24.5%		ICU Level of Service	A
Analysis Period (min)			15			

Queues

2026 Background

AM Peak Hour

2: Herndon Pkwy & Elden Street



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	38	530	162	371	131	37	83	112	255	283
v/c Ratio	0.14	0.80	0.64	0.41	0.26	0.07	0.05	0.15	0.34	0.16
Control Delay	30.4	62.4	44.4	43.9	6.9	15.7	24.3	4.3	17.4	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	62.4	44.4	43.9	6.9	15.7	24.3	4.3	17.4	19.4
Queue Length 50th (ft)	24	244	109	152	0	13	21	0	108	65
Queue Length 95th (ft)	43	283	144	180	47	36	43	32	198	116
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	275		300			180		225	135	
Base Capacity (vph)	364	928	304	1077	567	667	1569	754	749	1767
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.57	0.53	0.34	0.23	0.06	0.05	0.15	0.34	0.16
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2026 Background

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	461	38	152	349	123	35	78	105	240	215	51
Future Volume (vph)	36	461	38	152	349	123	35	78	105	240	215	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3494		1769	3539	1563	1770	3539	1555	1765	3438	
Flt Permitted	0.53	1.00		0.18	1.00	1.00	0.58	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	989	3494		330	3539	1563	1077	3539	1555	1184	3438	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	38	490	40	162	371	131	37	83	112	255	229	54
RTOR Reduction (vph)	0	5	0	0	0	97	0	0	63	0	11	0
Lane Group Flow (vph)	38	525	0	162	371	34	37	83	49	255	272	0
Confl. Peds. (#/hr)			6	6					4	4		
Confl. Bikes (#/hr)						1						
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	33.3	27.7		47.8	36.2	36.2	66.0	60.9	60.9	80.2	69.1	
Effective Green, g (s)	33.3	27.7		47.8	36.2	36.2	66.0	60.9	60.9	80.2	69.1	
Actuated g/C Ratio	0.24	0.20		0.34	0.26	0.26	0.47	0.43	0.43	0.57	0.49	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	266	691		257	915	404	532	1539	676	733	1696	
v/s Ratio Prot	0.01	c0.15		c0.06	0.10		0.00	0.02		c0.03	0.08	
v/s Ratio Perm	0.03			0.15		0.02	0.03		0.03	c0.17		
v/c Ratio	0.14	0.76		0.63	0.41	0.08	0.07	0.05	0.07	0.35	0.16	
Uniform Delay, d1	41.6	53.0		35.3	43.0	39.3	20.0	22.9	23.1	15.1	19.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.96	0.95	0.82	1.00	1.00	
Incremental Delay, d2	0.1	4.4		3.7	0.1	0.0	0.0	0.1	0.2	0.2	0.2	
Delay (s)	41.6	57.5		39.0	43.1	39.4	19.1	21.8	19.1	15.3	19.7	
Level of Service	D	E		D	D	D	B	C	B	B	B	
Approach Delay (s)		56.4			41.4			20.1			17.6	
Approach LOS		E			D			C			B	
Intersection Summary												
HCM 2000 Control Delay		36.8				HCM 2000 Level of Service		D				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		140.0				Sum of lost time (s)		24.0				
Intersection Capacity Utilization		69.4%				ICU Level of Service		C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

3: Herndon Pkwy & Site Entrance

2026 Background

AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	6	0	250	392	12
Future Volume (Veh/h)	0	6	0	250	392	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	6	0	266	417	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.97	0.97	0.97			
vC, conflicting volume	556	215	430			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	472	119	342			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	503	880	1174			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	6	133	133	278	152	
Volume Left	0	0	0	0	0	
Volume Right	6	0	0	0	13	
cSH	880	1700	1700	1700	1700	
Volume to Capacity	0.01	0.08	0.08	0.16	0.09	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.1	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.1	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			21.2%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

2026 Background

AM Peak Hour

4: Herndon Pkwy & Grove Street

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	14	68	302	248	375
v/c Ratio	0.09	0.21	0.34	0.08	0.15
Control Delay	56.2	9.0	3.8	2.4	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	9.0	3.8	2.4	7.2
Queue Length 50th (ft)	12	0	36	13	59
Queue Length 95th (ft)	31	32	119	45	114
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	556	525	989	3137	2556
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.13	0.31	0.08	0.15
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

4: Herndon Pkwy & Grove Street

2026 Background

AM Peak Hour

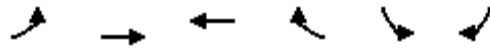
						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	65	290	238	282	78
Future Volume (vph)	13	65	290	238	282	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3425	
Flt Permitted	0.95	1.00	0.50	1.00	1.00	
Satd. Flow (perm)	1770	1583	931	3539	3425	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	14	68	302	248	294	81
RTOR Reduction (vph)	0	58	0	0	7	0
Lane Group Flow (vph)	14	10	302	248	368	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	8.7	20.2	119.3	119.3	101.8	
Effective Green, g (s)	8.7	20.2	119.3	119.3	101.8	
Actuated g/C Ratio	0.06	0.14	0.85	0.85	0.73	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	109	296	862	3015	2490	
v/s Ratio Prot	c0.01	0.00	c0.03	0.07	0.11	
v/s Ratio Perm		0.00	c0.27			
v/c Ratio	0.13	0.03	0.35	0.08	0.15	
Uniform Delay, d1	62.1	51.5	2.0	1.6	5.8	
Progression Factor	1.00	1.00	1.00	1.00	1.01	
Incremental Delay, d2	0.7	0.1	0.3	0.1	0.1	
Delay (s)	62.8	51.6	2.4	1.7	6.0	
Level of Service	E	D	A	A	A	
Approach Delay (s)	53.5			2.1	6.0	
Approach LOS	D			A	A	
Intersection Summary						
HCM 2000 Control Delay			7.7	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.35			
Actuated Cycle Length (s)			140.0	Sum of lost time (s)		18.0
Intersection Capacity Utilization			54.4%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis

5: Grove Street & Site Entrance

2026 Background

AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (veh/h)	0	78	361	6	0	9
Future Volume (Veh/h)	0	78	361	6	0	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	81	376	6	0	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			239			
pX, platoon unblocked						
vC, conflicting volume	382				420	191
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	382				420	191
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1173				562	818
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	40	40	251	131	9	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	6	9	
cSH	1700	1700	1700	1700	818	
Volume to Capacity	0.02	0.02	0.15	0.08	0.01	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	9.4	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.4	
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Entrance & Elden Street

2026 Background
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	760	9	0	759	0	12
Future Volume (Veh/h)	760	9	0	759	0	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	784	9	0	782	0	12
Pedestrians						7
Lane Width (ft)						12.0
Walking Speed (ft/s)						3.5
Percent Blockage						1
Right turn flare (veh)						
Median type	None		None			
Median storage veh						
Upstream signal (ft)	362					
pX, platoon unblocked					0.85	
vC, conflicting volume			800		1186	404
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			800		855	404
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			813		250	593
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	523	270	391	391	12	
Volume Left	0	0	0	0	0	
Volume Right	0	9	0	0	12	
cSH	1700	1700	1700	1700	593	
Volume to Capacity	0.31	0.16	0.23	0.23	0.02	
Queue Length 95th (ft)	0	0	0	0	2	
Control Delay (s)	0.0	0.0	0.0	0.0	11.2	
Lane LOS						B
Approach Delay (s)	0.0		0.0		11.2	
Approach LOS						B
Intersection Summary						
Average Delay	0.1					
Intersection Capacity Utilization			31.3%	ICU Level of Service		A
Analysis Period (min)	15					

Queues

2026 Background

PM Peak Hour

2: Herndon Pkwy & Elden Street



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	84	721	134	631	212	75	188	174	192	180
v/c Ratio	0.35	0.84	0.62	0.63	0.36	0.13	0.14	0.25	0.32	0.12
Control Delay	27.3	52.1	36.7	41.0	5.9	22.3	31.9	12.9	18.3	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	52.1	36.7	41.0	5.9	22.3	31.9	12.9	18.3	14.3
Queue Length 50th (ft)	42	278	68	230	0	34	55	0	78	25
Queue Length 95th (ft)	70	325	103	273	55	72	93	82	139	56
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	275		300			180		225	135	
Base Capacity (vph)	256	1083	231	1150	649	602	1356	704	616	1470
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.67	0.58	0.55	0.33	0.12	0.14	0.25	0.31	0.12
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2026 Background

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	655	45	130	612	206	73	182	169	186	100	75
Future Volume (vph)	81	655	45	130	612	206	73	182	169	186	100	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1769	3502		1769	3539	1559	1770	3539	1559	1767	3312	
Flt Permitted	0.27	1.00		0.14	1.00	1.00	0.64	1.00	1.00	0.58	1.00	
Satd. Flow (perm)	508	3502		263	3539	1559	1189	3539	1559	1071	3312	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	84	675	46	134	631	212	75	188	174	192	103	77
RTOR Reduction (vph)	0	4	0	0	0	152	0	0	109	0	45	0
Lane Group Flow (vph)	84	717	0	134	631	60	75	188	65	192	135	0
Confl. Peds. (#/hr)	3		3	3		3			3	3		
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	37.2	30.5		43.6	33.7	33.7	51.1	44.8	44.8	60.1	49.3	
Effective Green, g (s)	37.2	30.5		43.6	33.7	33.7	51.1	44.8	44.8	60.1	49.3	
Actuated g/C Ratio	0.31	0.25		0.36	0.28	0.28	0.43	0.37	0.37	0.50	0.41	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	227	890		219	993	437	536	1321	582	599	1360	
v/s Ratio Prot	0.02	c0.20		c0.05	c0.18		0.01	0.05		c0.03	0.04	
v/s Ratio Perm	0.09			0.17		0.04	0.05		0.04	c0.13		
v/c Ratio	0.37	0.81		0.61	0.64	0.14	0.14	0.14	0.11	0.32	0.10	
Uniform Delay, d1	30.5	42.0		28.6	37.8	32.3	20.7	24.9	24.6	16.9	21.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.31	1.21	2.70	1.00	1.00	
Incremental Delay, d2	0.4	5.1		3.5	1.0	0.1	0.0	0.2	0.4	0.2	0.1	
Delay (s)	30.9	47.0		32.1	38.8	32.3	27.1	30.3	66.8	17.1	21.9	
Level of Service	C	D		C	D	C	C	C	E	B	C	
Approach Delay (s)		45.3			36.5			44.3			19.4	
Approach LOS		D			D			D			B	
Intersection Summary												
HCM 2000 Control Delay		38.1			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)			24.0				
Intersection Capacity Utilization		82.2%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

3: Herndon Pkwy & Site Entrance

2026 Background

PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	9	0	487	280	11
Future Volume (Veh/h)	0	9	0	487	280	11
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	9	0	502	289	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.99					
vC, conflicting volume	546	150	300			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	513	150	300			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	484	870	1258			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	251	251	193	107	
Volume Left	0	0	0	0	0	
Volume Right	9	0	0	0	11	
cSH	870	1700	1700	1700	1700	
Volume to Capacity	0.01	0.15	0.15	0.11	0.06	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.2	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			18.1%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

2026 Background

PM Peak Hour

4: Herndon Pkwy & Grove Street



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	92	352	80	436	403
v/c Ratio	0.43	0.60	0.11	0.16	0.18
Control Delay	52.9	14.1	4.5	4.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	14.1	4.5	4.2	7.7
Queue Length 50th (ft)	68	58	11	34	42
Queue Length 95th (ft)	106	128	36	80	82
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	590	720	845	2753	2288
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.49	0.09	0.16	0.18
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

4: Herndon Pkwy & Grove Street

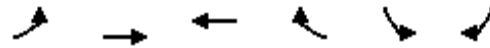
2026 Background

PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	85	324	74	401	340	30
Future Volume (vph)	85	324	74	401	340	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1769	3539	3492	
Flt Permitted	0.95	1.00	0.48	1.00	1.00	
Satd. Flow (perm)	1770	1583	891	3539	3492	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	352	80	436	370	33
RTOR Reduction (vph)	0	211	0	0	3	0
Lane Group Flow (vph)	92	141	80	436	400	0
Confl. Peds. (#/hr)			2			2
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	14.6	23.4	93.4	93.4	78.6	
Effective Green, g (s)	14.6	23.4	93.4	93.4	78.6	
Actuated g/C Ratio	0.12	0.19	0.78	0.78	0.65	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	215	387	757	2754	2287	
v/s Ratio Prot	0.05	c0.03	0.01	0.12	c0.11	
v/s Ratio Perm		0.06	0.07			
v/c Ratio	0.43	0.36	0.11	0.16	0.18	
Uniform Delay, d1	48.8	41.9	3.3	3.4	8.1	
Progression Factor	1.00	1.00	1.00	1.00	0.83	
Incremental Delay, d2	1.9	0.8	0.1	0.1	0.2	
Delay (s)	50.7	42.7	3.3	3.5	6.8	
Level of Service	D	D	A	A	A	
Approach Delay (s)	44.3			3.5	6.8	
Approach LOS	D			A	A	
Intersection Summary						
HCM 2000 Control Delay			17.8	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.24			
Actuated Cycle Length (s)			120.0	Sum of lost time (s)		18.0
Intersection Capacity Utilization			54.2%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis5: Grove Street & Site Entrance

2026 Background
PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (veh/h)	0	409	94	10	0	11
Future Volume (Veh/h)	0	409	94	10	0	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	445	102	11	0	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			239			
pX, platoon unblocked						
vC, conflicting volume	113				330	56
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	113				330	56
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1474				639	998
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	222	222	68	45	12	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	11	12	
cSH	1700	1700	1700	1700	998	
Volume to Capacity	0.13	0.13	0.04	0.03	0.01	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	8.7	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		8.7	
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			14.6%		ICU Level of Service	A
Analysis Period (min)			15			

APPENDIX G
TOTAL FUTURE WITH DEVELOPMENT (2026) SYNCHRO WORKSHEETS

HCM Unsignalized Intersection Capacity Analysis

2026 Total Future

1: Site Entrance & Elden Street

AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↗
Traffic Volume (veh/h)	510	5	0	435	0	28
Future Volume (Veh/h)	510	5	0	435	0	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	543	5	0	463	0	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				362		
pX, platoon unblocked					0.92	
vC, conflicting volume			548		777	274
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			548		573	274
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			1018		412	724
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	362	186	232	232	30	
Volume Left	0	0	0	0	0	
Volume Right	0	5	0	0	30	
cSH	1700	1700	1700	1700	724	
Volume to Capacity	0.21	0.11	0.14	0.14	0.04	
Queue Length 95th (ft)	0	0	0	0	3	
Control Delay (s)	0.0	0.0	0.0	0.0	10.2	
Lane LOS					B	
Approach Delay (s)	0.0		0.0		10.2	
Approach LOS					B	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			24.3%		ICU Level of Service	A
Analysis Period (min)			15			

Queues

2026 Total Future

2: Herndon Pkwy & Elden Street

AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	41	543	160	371	131	37	83	112	255	282
v/c Ratio	0.15	0.80	0.64	0.40	0.26	0.07	0.05	0.15	0.34	0.16
Control Delay	30.4	62.7	44.4	43.9	6.9	15.7	24.4	4.3	17.5	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	62.7	44.4	43.9	6.9	15.7	24.4	4.3	17.5	19.5
Queue Length 50th (ft)	26	251	107	152	0	13	21	0	109	66
Queue Length 95th (ft)	46	290	143	180	47	36	43	32	198	115
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	275		300			180		225	135	
Base Capacity (vph)	367	928	304	1076	566	665	1562	751	747	1761
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.59	0.53	0.34	0.23	0.06	0.05	0.15	0.34	0.16
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2026 Total Future
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	476	35	150	349	123	35	78	105	240	214	51
Future Volume (vph)	39	476	35	150	349	123	35	78	105	240	214	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3499		1769	3539	1563	1770	3539	1555	1765	3438	
Flt Permitted	0.53	1.00		0.17	1.00	1.00	0.58	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	989	3499		321	3539	1563	1078	3539	1555	1183	3438	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	41	506	37	160	371	131	37	83	112	255	228	54
RTOR Reduction (vph)	0	4	0	0	0	97	0	0	64	0	11	0
Lane Group Flow (vph)	41	539	0	160	371	34	37	83	48	255	271	0
Confl. Peds. (#/hr)			6	6					4	4		
Confl. Bikes (#/hr)						1						
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	34.0	28.2		48.1	36.3	36.3	65.6	60.5	60.5	79.9	68.8	
Effective Green, g (s)	34.0	28.2		48.1	36.3	36.3	65.6	60.5	60.5	79.9	68.8	
Actuated g/C Ratio	0.24	0.20		0.34	0.26	0.26	0.47	0.43	0.43	0.57	0.49	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	272	704		254	917	405	530	1529	671	730	1689	
v/s Ratio Prot	0.01	c0.15		c0.06	0.10		0.00	0.02		c0.03	0.08	
v/s Ratio Perm	0.03			0.15		0.02	0.03		0.03	c0.17		
v/c Ratio	0.15	0.77		0.63	0.40	0.08	0.07	0.05	0.07	0.35	0.16	
Uniform Delay, d1	41.1	52.8		35.1	42.9	39.3	20.2	23.1	23.3	15.2	19.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	0.96	0.95	0.82	1.00	1.00	
Incremental Delay, d2	0.1	4.5		3.5	0.1	0.0	0.0	0.1	0.2	0.2	0.2	
Delay (s)	41.2	57.3		38.6	43.0	39.3	19.3	22.0	19.3	15.5	19.9	
Level of Service	D	E		D	D	D	B	C	B	B	B	
Approach Delay (s)		56.1			41.2			20.3			17.8	
Approach LOS		E			D			C			B	
Intersection Summary												
HCM 2000 Control Delay		36.9			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.50										
Actuated Cycle Length (s)		140.0			Sum of lost time (s)			24.0				
Intersection Capacity Utilization		69.6%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

3: Herndon Pkwy & Site Entrance

2026 Total Future
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	22	0	250	390	8
Future Volume (Veh/h)	0	22	0	250	390	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	23	0	266	415	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.97	0.97	0.97			
vC, conflicting volume	552	212	424			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	468	116	335			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	100			
cM capacity (veh/h)	506	884	1180			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	23	133	133	277	147	
Volume Left	0	0	0	0	0	
Volume Right	23	0	0	0	9	
cSH	884	1700	1700	1700	1700	
Volume to Capacity	0.03	0.08	0.08	0.16	0.09	
Queue Length 95th (ft)	2	0	0	0	0	
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.2	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			21.0%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

2026 Total Future

AM Peak Hour

4: Herndon Pkwy & Grove Street

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	14	68	302	248	389
v/c Ratio	0.09	0.21	0.35	0.08	0.15
Control Delay	56.2	9.0	3.9	2.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	9.0	3.9	2.4	7.3
Queue Length 50th (ft)	12	0	36	13	62
Queue Length 95th (ft)	31	32	119	45	120
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	556	525	980	3137	2556
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.13	0.31	0.08	0.15
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

4: Herndon Pkwy & Grove Street

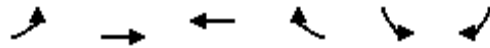
2026 Total Future
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	65	290	238	295	79
Future Volume (vph)	13	65	290	238	295	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3427	
Flt Permitted	0.95	1.00	0.49	1.00	1.00	
Satd. Flow (perm)	1770	1583	918	3539	3427	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	14	68	302	248	307	82
RTOR Reduction (vph)	0	58	0	0	7	0
Lane Group Flow (vph)	14	10	302	248	382	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	8.7	20.2	119.3	119.3	101.8	
Effective Green, g (s)	8.7	20.2	119.3	119.3	101.8	
Actuated g/C Ratio	0.06	0.14	0.85	0.85	0.73	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	109	296	852	3015	2491	
v/s Ratio Prot	c0.01	0.00	c0.03	0.07	0.11	
v/s Ratio Perm		0.00	c0.27			
v/c Ratio	0.13	0.03	0.35	0.08	0.15	
Uniform Delay, d1	62.1	51.5	2.0	1.6	5.9	
Progression Factor	1.00	1.00	1.00	1.00	1.01	
Incremental Delay, d2	0.7	0.1	0.3	0.1	0.1	
Delay (s)	62.8	51.6	2.4	1.7	6.1	
Level of Service	E	D	A	A	A	
Approach Delay (s)	53.5			2.1	6.1	
Approach LOS	D			A	A	
Intersection Summary						
HCM 2000 Control Delay			7.7		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.35			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			54.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Unsignalized Intersection Capacity Analysis

5: Grove Street & Site Entrance

2026 Total Future
AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (veh/h)	0	78	361	7	0	12
Future Volume (Veh/h)	0	78	361	7	0	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	81	376	7	0	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)			239			
pX, platoon unblocked						
vC, conflicting volume	383				420	192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	383				420	192
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	98
cM capacity (veh/h)	1172				561	818
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	40	40	251	132	13	
Volume Left	0	0	0	0	0	
Volume Right	0	0	0	7	13	
cSH	1700	1700	1700	1700	818	
Volume to Capacity	0.02	0.02	0.15	0.08	0.02	
Queue Length 95th (ft)	0	0	0	0	1	
Control Delay (s)	0.0	0.0	0.0	0.0	9.5	
Lane LOS					A	
Approach Delay (s)	0.0		0.0		9.5	
Approach LOS					A	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			20.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Site Entrance & Elden Street

2026 Total Future
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	760	15	0	759	0	16
Future Volume (Veh/h)	760	15	0	759	0	16
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	784	15	0	782	0	16
Pedestrians						7
Lane Width (ft)						12.0
Walking Speed (ft/s)						3.5
Percent Blockage						1
Right turn flare (veh)						
Median type	None		None			
Median storage veh)						
Upstream signal (ft)	362					
pX, platoon unblocked					0.85	
vC, conflicting volume			806		1190	406
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			806		861	406
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	97
cM capacity (veh/h)			809		248	590
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	523	276	391	391	16	
Volume Left	0	0	0	0	0	
Volume Right	0	15	0	0	16	
cSH	1700	1700	1700	1700	590	
Volume to Capacity	0.31	0.16	0.23	0.23	0.03	
Queue Length 95th (ft)	0	0	0	0	2	
Control Delay (s)	0.0	0.0	0.0	0.0	11.3	
Lane LOS						B
Approach Delay (s)	0.0		0.0		11.3	
Approach LOS						B
Intersection Summary						
Average Delay	0.1					
Intersection Capacity Utilization			31.5%	ICU Level of Service		A
Analysis Period (min)	15					

Queues

2: Herndon Pkwy & Elden Street

2026 Total Future

PM Peak Hour

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	84	727	147	631	212	75	188	174	192	183
v/c Ratio	0.35	0.84	0.67	0.63	0.36	0.13	0.14	0.25	0.32	0.13
Control Delay	27.0	52.1	39.5	40.6	5.8	22.4	32.0	12.9	18.5	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	52.1	39.5	40.6	5.8	22.4	32.0	12.9	18.5	14.5
Queue Length 50th (ft)	41	281	75	229	0	34	55	0	79	26
Queue Length 95th (ft)	70	329	112	273	55	72	93	82	139	57
Internal Link Dist (ft)		282		746			187			156
Turn Bay Length (ft)	275		300			180		225	135	
Base Capacity (vph)	259	1083	231	1150	649	598	1345	700	612	1462
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.67	0.64	0.55	0.33	0.13	0.14	0.25	0.31	0.13
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

2: Herndon Pkwy & Elden Street

2026 Total Future
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	663	42	143	612	206	73	182	169	186	103	75
Future Volume (vph)	81	663	42	143	612	206	73	182	169	186	103	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1769	3505		1769	3539	1559	1770	3539	1559	1767	3316	
Flt Permitted	0.28	1.00		0.14	1.00	1.00	0.64	1.00	1.00	0.58	1.00	
Satd. Flow (perm)	517	3505		258	3539	1559	1186	3539	1559	1070	3316	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	84	684	43	147	631	212	75	188	174	192	106	77
RTOR Reduction (vph)	0	4	0	0	0	152	0	0	110	0	46	0
Lane Group Flow (vph)	84	723	0	147	631	60	75	188	64	192	137	0
Confl. Peds. (#/hr)	3		3	3		3			3	3		
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)	37.4	30.7		44.2	34.1	34.1	50.7	44.4	44.4	59.7	48.9	
Effective Green, g (s)	37.4	30.7		44.2	34.1	34.1	50.7	44.4	44.4	59.7	48.9	
Actuated g/C Ratio	0.31	0.26		0.37	0.28	0.28	0.42	0.37	0.37	0.50	0.41	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	5.0	5.0	2.5	2.5	
Lane Grp Cap (vph)	231	896		222	1005	443	531	1309	576	595	1351	
v/s Ratio Prot	0.02	c0.21		c0.06	0.18		0.01	0.05		c0.03	0.04	
v/s Ratio Perm	0.09			c0.19		0.04	0.05		0.04	c0.13		
v/c Ratio	0.36	0.81		0.66	0.63	0.14	0.14	0.14	0.11	0.32	0.10	
Uniform Delay, d1	30.3	41.9		28.5	37.4	32.0	20.9	25.2	24.8	17.1	22.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.31	1.21	2.70	1.00	1.00	
Incremental Delay, d2	0.4	5.1		5.6	0.9	0.1	0.0	0.2	0.4	0.2	0.2	
Delay (s)	30.7	47.0		34.2	38.3	32.0	27.4	30.6	67.5	17.3	22.1	
Level of Service	C	D		C	D	C	C	C	E	B	C	
Approach Delay (s)		45.3			36.4			44.7			19.7	
Approach LOS		D			D			D			B	
Intersection Summary												
HCM 2000 Control Delay			38.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			83.1%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis 3: Herndon Pkwy & Site Entrance

2026 Total Future
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	13	0	487	280	24
Future Volume (Veh/h)	0	13	0	487	280	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	13	0	502	289	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				518	267	
pX, platoon unblocked	0.99					
vC, conflicting volume	552	157	314			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	520	157	314			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	479	861	1243			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	251	251	193	121	
Volume Left	0	0	0	0	0	
Volume Right	13	0	0	0	25	
cSH	861	1700	1700	1700	1700	
Volume to Capacity	0.02	0.15	0.15	0.11	0.07	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.2	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			18.5%	ICU Level of Service		A
Analysis Period (min)			15			

Queues

2026 Total Future

PM Peak Hour

4: Herndon Pkwy & Grove Street

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	92	352	89	436	407
v/c Ratio	0.43	0.60	0.12	0.16	0.18
Control Delay	52.9	14.2	4.5	4.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	14.2	4.5	4.2	7.7
Queue Length 50th (ft)	68	59	12	34	43
Queue Length 95th (ft)	106	129	39	80	82
Internal Link Dist (ft)	159			237	438
Turn Bay Length (ft)			207		
Base Capacity (vph)	590	719	844	2753	2283
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.49	0.11	0.16	0.18
Intersection Summary					

HCM Signalized Intersection Capacity Analysis

4: Herndon Pkwy & Grove Street

2026 Total Future
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	85	324	82	401	342	32
Future Volume (vph)	85	324	82	401	342	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1769	3539	3489	
Flt Permitted	0.95	1.00	0.48	1.00	1.00	
Satd. Flow (perm)	1770	1583	887	3539	3489	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	352	89	436	372	35
RTOR Reduction (vph)	0	209	0	0	3	0
Lane Group Flow (vph)	92	143	89	436	404	0
Confl. Peds. (#/hr)			2			2
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	4	1	1	6	2	
Permitted Phases		4	6			
Actuated Green, G (s)	14.6	23.5	93.4	93.4	78.5	
Effective Green, g (s)	14.6	23.5	93.4	93.4	78.5	
Actuated g/C Ratio	0.12	0.20	0.78	0.78	0.65	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	215	389	755	2754	2282	
v/s Ratio Prot	0.05	c0.03	0.01	0.12	c0.12	
v/s Ratio Perm		0.06	0.08			
v/c Ratio	0.43	0.37	0.12	0.16	0.18	
Uniform Delay, d1	48.8	41.8	3.3	3.4	8.1	
Progression Factor	1.00	1.00	1.00	1.00	0.82	
Incremental Delay, d2	1.9	0.8	0.1	0.1	0.2	
Delay (s)	50.7	42.6	3.4	3.5	6.8	
Level of Service	D	D	A	A	A	
Approach Delay (s)	44.3			3.5	6.8	
Approach LOS	D			A	A	
Intersection Summary						
HCM 2000 Control Delay			17.6	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.24			
Actuated Cycle Length (s)			120.0	Sum of lost time (s)		18.0
Intersection Capacity Utilization			54.2%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						



Elizabeth M. Gilleran, AICP
Director of Community Development
T (703) 787-7380
F (703) 481-5280
community.development@herndon-va.gov

TOWN COUNCIL
Sheila A. Olem, Mayor
Cesar del Aguila, Vice Mayor
Naila Alam
Pradip Dhakal
Signe Friedrichs
Sean M. Regan
Jasbinder Singh

May 27, 2022

Ken Wire
Wire Gill LLP.
1750 Tysons Boulevard, Suite 1500
Tysons, VA 22102

RE: Resolution, to consider Special Exception application, **SE #22-01, 315 Elden Street**, a special exception to allow for development within the FPO, Floodplain Overlay District. This case is subject to approval of Zoning Map Amendment ZMA #21-01, 315 Elden Street, a zoning map amendment from CS, Commercial Services, to PD-UR, Planned Development – Urban Residential, with proffered conditions to allow the conversion of an existing hotel to multi-family residential with a workforce housing component, which is being reviewed concurrently with this case. The site is approximately 6.4 acres and is currently improved with 168 rooms spread across 11 buildings. The proposed conversion would result in up to 174 dwelling units (28 dwelling units per acre). The property is located at the southwest corner of the Elden Street and Herndon Parkway intersection and is bordered by Grove Street to the south. Fairfax County Tax Map Reference Number 0171-02-0007. Agent: Ken Wire, Wire Gill LLP. Applicant and property owner: Elden Street Owner, LLC.

Dear Ken Wire,

This is to notify you that at its public hearing held on Tuesday, May 24, 2022, the Herndon Town Council **continued, Special Exception, SE #22-01**.

Therefore, your above-referenced application has been scheduled to be heard before the Herndon Town Council on Tuesday, June 14, 2022 at 7:00 p.m. The meeting will be held in the Herndon Council Chambers Building, located at 765 Lynn Street, Herndon, Virginia. You, or a representative, are required to be present at the public hearing to answer any questions the council members may have.

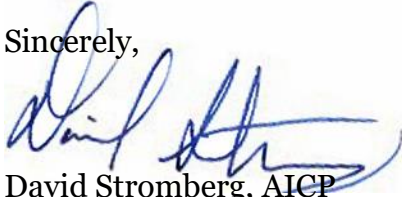
Your application will also be discussed informally by the Herndon Town Council at a work session on Tuesday, June 7, 2022 at 7:00 p.m. in the Town of Herndon Police Department Community Room, located at 397 Herndon Parkway, Herndon, Virginia. Protocol prohibits applicants or their representatives from speaking or presenting information at the work session unless the Mayor makes such a request. Participation of this type is reserved for the public hearing.

Application materials and the staff report will be available to applicants and the public on the Town's website at <https://www.herndon-va.gov/government/mayor-town-council/agendas-minutes-webcasts> the Friday prior to the work session.

SE #22-01-315 Elden Street

Please contact the Department of Community Development at 703.787.7380 or at planning.commission@herndon-va.gov with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Stromberg".

David Stromberg, AICP
Zoning Administrator

c: William H. Ashton II, Town Manager (via-email)

c: Elden Street Owner LLC
4949 N. Niagara Street, Suite 300
Denver, CO 80237

Peter Kleeblatt
Elden Street Owner LLC
900 17th St., NW #1050
Washington, DC 20006

Greg Ellwood & Mike Birkland
Bohler Engineering
12825 Worldgate Drive, Suite 700
Herndon, VA 20170

Kevin Fellin
Wells & Associates
11220 Assett Loop, Suite 202
Manassas, VA 20109

TOWN OF HERNDON, VIRGINIA

RESOLUTION

May 24, 2022

Resolution- to consider Special Exception application, **SE #22-01, 315 Elden Street**, a special exception to allow for development within the FPO, Floodplain Overlay District.

WHEREAS, the applicant, Elden Street Owner, LLC, has submitted a special exception, SE #22-01, on land identified as Fairfax County Tax Map Number 0171-02-0007, to convert an existing hotel development to multi-family use and a portion of the existing site is within the floodplain; and

WHEREAS, this request is being heard concurrently with ZMA #21-01 and is contingent upon approval of ZMA #21-01; and

WHEREAS, the request conforms to the Town of Herndon 2030 Comprehensive Plan; and

WHEREAS on April 25, 2022, the Planning Commission held a public hearing and recommended that the application be approved based on the finding that the proposed use meets the purpose and intent of the zoning ordinance; and

WHEREAS the Town Council has reviewed this application and has held a public hearing in accordance with the provisions of §15.2-2204 of the State Code; and

WHEREAS, the Town Council has determined that the above referenced application conforms to Section 78-60.2 and Section 78-155.3(e)(1) and (2) of the zoning ordinance; and

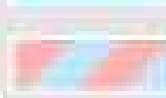
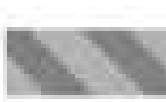
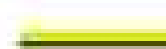
NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the Town of Herndon, Virginia, that the Commission hereby recommends that the Town Council approve SE #22-01 with the following condition.

The application shall be in substantial conformance the ZMA #21-01 Generalized Development Plan dated March 2, 2022.



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

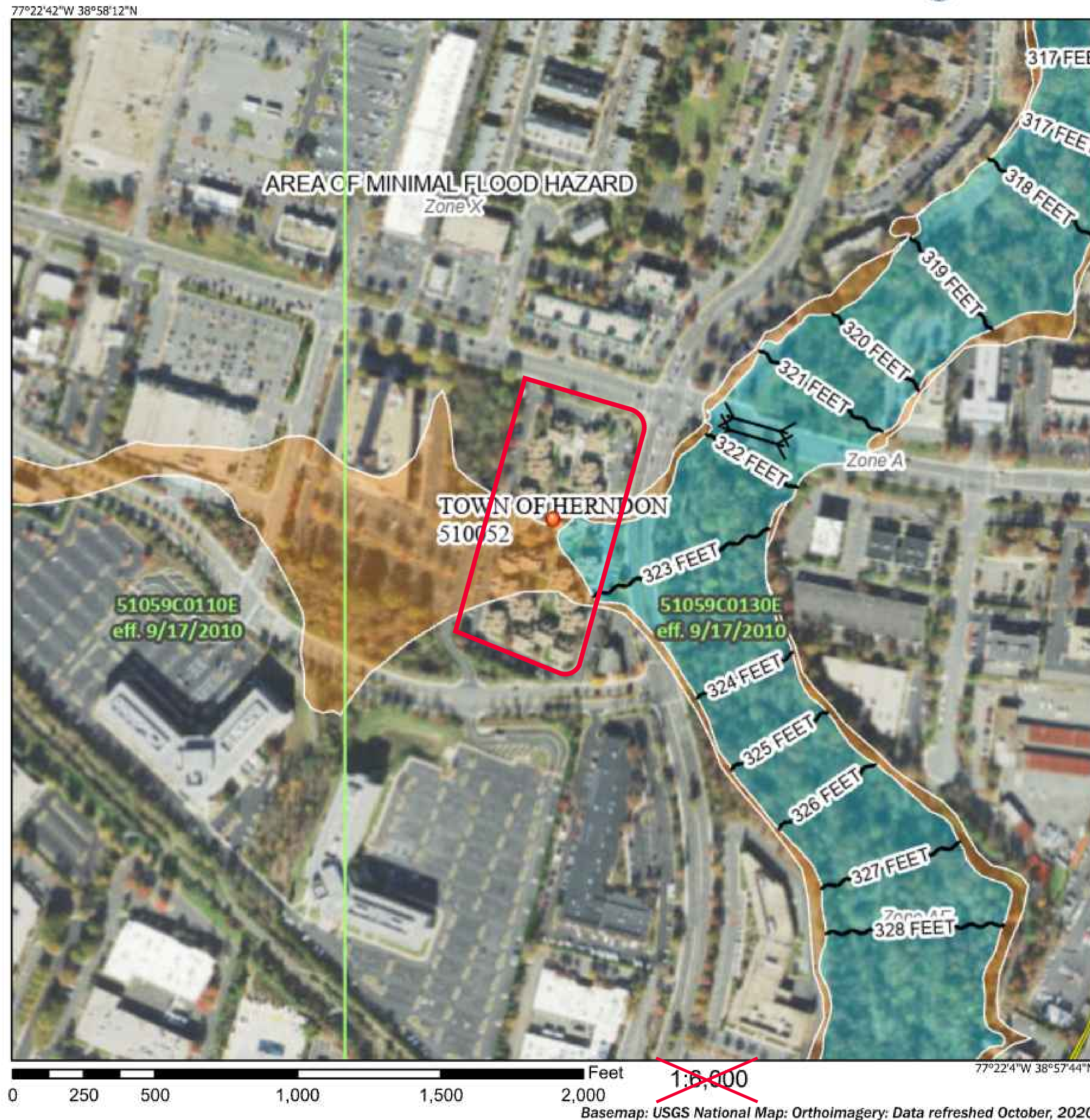
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/20/2021 at 10:50 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

[illegible]

**Know what's below.
Call before you dig.**
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR
CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	S212133
DRAWN BY:	AND
CHECKED BY:	GE
DATE:	12/30/2021
AD I.D.:	GDVL - 2

PROJECT:

**GENERAL
DEVELOPMENT
PLAN**

315 ELDEN
STREET
RESIDENTIAL

LOCATION OF SITE

315 ELDEN STREET
TOWN OF HERNDON
FAIRFAX COUNTY, VA
RANESVILLE DISTRICT

BOHLER //

12825 WORLDGATE DR. SUITE 700
HERNDON, VIRGINIA 20170
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com



SHEET TITLE:

FLOODPLAIN MAP

SHEET NUMBER: _____

C-4

REVISION 2 - 02/25/2022



STAFF REPORT

Town Council

June 7, 2022

Title:

An ordinance to amend and reenact Chapter 42 (MOTOR VEHICLES AND TRAFFIC), of the Code of Herndon, Article IV (Stopping, Standing, Parking), Division 4 (Residential Permit Parking), Section 42-223 (Designated Residential Parking Zones), to designate a new residential parking zone to be known as the "Leona Lane Zone".

Staff Contacts:

Bill Ashton, Town Manager
(703) 787-7368
Bill.Ashton@herndon-va.gov

Description:

My office was contacted by Ms. Mary Mann, 910 Leona Lane, regarding the several parking problems that routinely occur along Leona Lane from the intersection with Marjorie Lane and continuing to the cul-de-sac where Leona Lane terminates. The issues that she brought to my attention were that every night, the majority of the available parking space along this stretch of Leona Lane is occupied by residents of Reneau Way, part of an adjacent neighborhood. The effects on the Runnymede neighborhood included:

- 1) Inability and difficulty to obtain adequate curbside parking to near the neighborhood's residences
- 2) Concern for rescue and fire emergency services being able to navigate Leona Lane and within the cul-de-sac
- 3) Inability and difficulty to obtain town services such as trash, recycle, snow, and leaf removal
- 4) Sight line problems created by parked cars
- 5) Trash, and litter dumped at the curbside
- 6) Ability to preserve, protect, and promote the characteristics, peace, comfort, convenience, and welfare of the residents of Leona Lane.

Frustrated with the situation, Ms. Mann approached my office about the establishment of a residential parking permit zone on the stretch of Leona Lane from its intersection with Marjorie Lane to the Leona Lane cul-de-sac.

On April 20, 2022, Ms. Mann, along with other members of the Runnymede Manor HOA, delivered to my office a petition signed by 14 residents requesting that the town establish a residential parking permit zone on Leona Lane. Neighborhood petitions are the first step to establishment of a zone.

Upon receipt of the petition, I asked staff to conduct an engineering and site survey of the proposed zone. Engineering staff determined that under current Code, 35 legal spaces exist in the defined area. Engineering staff further found that parking on both sides of Leona Lane at the point where it curves met the traffic engineering warrants to restrict parking for safety reasons. The engineers recommended that 13 spaces be eliminated to allow for emergency vehicle access and better sight lines. Based on engineering recommendations, I have authorized that no parking signs be placed to eliminate these safety considerations. Once this new parking zone goes into effect, 22 legal spaces will exist in the proposed residential parking permit zone.

Next, staff observed the conditions of Leona Lane during the periods when the residents indicated that the highest volume of cars were parked. The data were gathered in the late night/early morning hours of eight days over two weeks. Twenty cars, on average, were parked in the proposed zone during the study period. Almost all of the vehicles parked were not owned by residents of Runnymede Manor.

Chapter 42 of the Herndon Town Code allows for a residential parking permit program to be established if:

- 1) More than 60 percent of the residents petition for establishment of a residential parking permit zone.
- 2) The total number of curbside spaces occupied is equal to, or greater than, 65 percent.
- 3) The total number of curbside spaces occupied by vehicles not registered in the neighborhood is equal to, or greater than, 25 percent.

The study indicates that the first and third requirements are being met under this application and staff analysis. The second requirement is not met under current conditions. Only 57% of the available curb side spaces are parked and the standard is 65%. However, once the engineering recommendations are adopted, 90% of the available spaces will be parked. Staff believes that there will be no change in parking behavior with fewer spaces. Once the recommended “no parking” restrictions are applied, all requirements under Chapter 42 will be met.

The ordinance presented is for Town Council to authorize the Town Manager to establish a residential parking permit zone for the legal spaces on Leona Lane from its intersection with Marjorie Lane and continuing southward and eastward to cul-de-sac where Leona Lane ends, from 12:00 AM – 7:00 AM daily.

Further, I request that the Town Council instruct staff to continue to monitor the area and expand and/or modify the zone if the identified problems shift to another section of Leona Lane.

Staff will work with the homeowners to implement the program in the affected areas and will watch carefully to determine if additional action should be taken.

Recommendation:

The Mayor and Town Council approve the draft ordinance as proposed.

Attachments:

Ordinance

Prepared and Approved by:

A handwritten signature in black ink, appearing to read "Bill Ashton", is written over a horizontal line.

Bill Ashton
Town Manager

TOWN OF HERNDON, VIRGINIA

ORDINANCE

JUNE 14, 2022

Ordinance - to amend and reenact Chapter 42 (MOTOR VEHICLES AND TRAFFIC), of the Code of Herndon, Article IV (Stopping, Standing, Parking), Division 4 (Residential Permit Parking), Section 42-223 (Designated Residential Parking Zones), to designate a new residential parking zone to be known as the “Leona Lane Zone”.

BE IT ORDAINED by the Town Council of the Town of Herndon, Virginia, that:

1. Chapter 42, Motor Vehicles and Traffic, Article IV, Stopping, Standing, Parking, Division 4, Residential Permit Parking of the Herndon Town Code (2000), as amended, is amended and re-ordained as follows:

Section 42-223. Designated Residential Permit Parking Zones

Leona Lane Zone. Parking by permit only 12:00 a.m. to 7:00 a.m. on Leona Lane from its intersection with Marjorie Lane and continuing southward and eastward to cul-de-sac where Leona Lane ends.

Madison Street Zone. Parking by permit only 12:00 a.m. to 7:00 a.m. Madison Street from its intersection with Madison Forest Drive and continuing eastward to cul-de-sac where Madison Street ends.

2. This ordinance shall be effective on and after the date of its adoption.



STAFF REPORT

**Town Council Work Session
June 7, 2022**

Title:

Resolution, to Award a Contract for Smart City Services RFP# 22-12.

Staff Contact:

Page Kalapasev
Director of Information technology
(703)-435-6800 x2001
Page.kalapasev@herndon-va.gov

Summary:

A Request for Proposal for was issued with the intent to establish a term contract for Smart City services of a qualified vendor experienced in providing innovative smart city concepts and experiences to the community. Potential vendors were notified via eVA and Town of Herndon.

The proposal provides for a base of five-year renewable options. Proposals were evaluated based upon their compatibility with existing smart city pilot, the offeror's ability, capacity, and skill to provide the services, proposed solution, pricing, experience, expertise and capabilities of the firm, and references.

Proposals were received from two (2) vendors. All were deemed responsive. An evaluation of the proposals ranked the vendors as follows:

1. Vivacity / eX2 Technology
2. M.C. Dean

Fiscal Impact:

The Information Technology Department budget provides Smart City Services funding.

**Smart Cities Services
Staff Report
Page Two**

Recommendation:

The staff recommends that the contract be awarded to Vivacity /Ex2 Technologies, and that the Town Manager be authorized to enter into five (5) one-year contract to procure smart city services.

Prepared and Reviewed By:

Page Kalapasev, Director of Information technology
Gerald W. Amacker, Purchasing Agent

TOWN OF HERNDON, VIRGINIA

RESOLUTION

JUNE 14, 2022

Resolution, to Award a Contract for Smart City Services, RFP #22-12.

WHEREAS, the Request for Proposal process was used to solicit offers from software contractors; and

WHEREAS, the request for proposal solicited services for an initial five-year contract and

WHEREAS, the Request for Proposal was posted February 17, 2022, on the eVA Commonwealth of Virginia procurement website and the Town's Website to maximize fullest competition; and

WHEREAS, two (2) proposals were received on March 29, 2022, at 3:00 p.m. and the proposal award was based on the best solution for the Town with the results as follows:

1. Vivacity / eX2 Technology
2. M.C. Dean; and

WHEREAS, it is the staff's recommendation to award the contract to the best proposal that fits the Town's needs, Vivacity / eX2 Technology; and

WHEREAS, funds to support the work with proposal costs established by the contract are available in the following account: I.T. Budget 001/0225/420790.

NOW, THEREFORE, BE IT RESOLVED that the Town Council of the Town of Herndon, Virginia hereby awards a five-year contract, RFP #22-12, to **Vivacity / eX2 Technology** for Smart City Services, in the amount of \$319,341.00 for a five-year term or \$63,868.20 annually.

STAFF REPORT

Town Council
June 7, 2022

Title:

Resolution, to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and Arts Herndon, Inc., to extend the expiration date to June 30, 2023 for space at 750 Center Street.

Staff Contact:

Lesa J. Yeatts, Town Attorney
(703) 787-7370
lesa.yeatts@herndon-va.gov

Scott Robinson, Director of Public Works
(703) 787-7388
scott.robinson@herndon-va.gov

Description:

Provided to you is a Second Sublicense Extension between the Town and Arts Herndon (Artspace) for space at 750 Center Street and a draft approving Resolution for consideration.

Artspace currently is sublicensee to 3,210 sq. ft. of space in the building licensed to the Town by Comstock at 750 Center Street that is used for an arts center including an art gallery, meetings with artists, small group sessions with artists and the public, art classes, and artistic events. Relocation of their facility to the Town's building at 397 Herndon Parkway is currently underway.

As the current sublicense will expire on June 30, 2022, the extension allows for the sublicense to continue on a month-to-month basis and can be cancelled with 30 days' notice to Artspace, if necessary. In any case, the month-to-month extension would expire when they are relocated or in 1 year.

The rent for this space is currently \$1.00 per term, consistent with similar leases on Town property and is proposed to remain the same.

Fiscal Impact:

Economic Development staff estimates market rent for this space to currently be \$22 per square foot based on recent comparable rental spaces in the Downtown.

Staff Recommendation:

The Mayor and Town Council approve the Resolution as proposed.

Attachments:

1. Resolution
2. Second Sublicense Extension

Prepared and Approved by:



Lesa J. Yeatts, Town Attorney



Scott Robinson, Director of Public Works

TOWN OF HERNDON, VIRGINIA

RESOLUTION

JUNE 14, 2022

Resolution - to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and Arts Herndon, Inc., to extend the expiration date to June 30, 2023 for space at 750 Center Street.

WHEREAS, the parties entered into a Sublicense Agreement dated December 18, 2020, as extended by the Extension of Sublicense dated December 27, 2021 for the use of property licensed to the Town at 750 Center Street; and

WHEREAS, the Sublicense Agreement is set to expire on June 30, 2022; and

WHEREAS, Town and Arts Herndon desire to extend the term of the Agreement to expire on June 30, 2023.

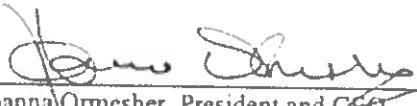
NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Herndon, Virginia that the Mayor of the Town of Herndon, Virginia is authorized to sign and deliver this Second Extension of Sublicense on such form approved by the Town Attorney and any other instrument necessary to evidence or effectuate this agreement.

Second Extension of Sublicense

This Second Extension of Sublicense dated June 14, 2022, hereby extends the June 30, 2022 termination date of the existing Sublicense between the Town of Herndon, a Virginia municipal corporation (Town) and Arts Herndon, Inc., a Virginia non-profit, charitable corporation (Sublicensee), dated December 18, 2020 and as extended by the Extension of Sublicense dated December 27, 2021, for approximately 3,210 square feet of building space, outside lawn area, and gravel parking spaces located at 750 Center Street (the Sublicense) for a period of 1 year (the Extension).

THEREFORE, for the consideration stated in the Sublicense and herein, the parties agree as follows:

1. The Sublicense is incorporated by reference.
2. The Sublicense shall terminate on **June 30, 2023**.
3. In all other respects, the Sublicense is confirmed.

TOWN OF HERNDON, VIRGINIA _____ Sheila A. Olem, Mayor	ARTS HERNDON, INC.  _____ Joanna Ormesher, President and CEO
ATTEST _____ Town Clerk	APPROVED AS TO FORM _____ Lesa J. Yeatts, Town Attorney

STAFF REPORT

Town Council
June 7, 2022

Title:

Resolution, to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 750 Center Street.

Staff Contact:

Lesa J. Yeatts, Town Attorney
(703) 787-7370
lesa.yeatts@herndon-va.gov

Scott Robinson, Director of Public Works
(703) 787-7388
scott.robinson@herndon-va.gov

Description:

Provided to you is a Second Sublicense Extension between the Town and NextStop for space at 750 Center Street and a draft approving Resolution for consideration.

NextStop currently is sublicensee to 2,790 sq. ft. of space in the building licensed to the Town by Comstock at 750 Center Street that is used for storage, construction, or dismantling of theater props, sets, and other supplies consistent with a theatrical company.

As the current sublicense will expire on June 30, 2022, the extension allows for the sublicense to continue on a month-to-month basis and can be cancelled with 30 days' notice to NextStop, if necessary. In any case, the month-to-month extension would expire in 1 year.

The rent for this space is currently \$1.00 per term, consistent with similar leases on Town property and is proposed to remain the same.

Fiscal Impact:

Economic Development staff estimates market rent for this space to currently be \$22 per square foot based on recent comparable rental spaces in the Downtown.

Staff Recommendation:

The Mayor and Town Council ratify the Resolution as proposed.

Attachments:

1. Resolution
2. Second Sublicense Extension

Prepared and Approved by:



Lesa J. Yeatts, Town Attorney



Scott Robinson, Director of Public Works

TOWN OF HERNDON, VIRGINIA

RESOLUTION

JUNE 14, 2022

Resolution - to approve and authorize the Mayor to sign a Second Sublicense Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 750 Center Street.

WHEREAS, the parties entered into a Sublicense Agreement dated December 28, 2020, as extended by the Extension of Sublicense dated December 27, 2021 for the use of property licensed to the Town at 750 Center Street; and

WHEREAS, the Sublicense Agreement is set to expire on June 30, 2022; and

WHEREAS, Town and The Elden Street Players desire to extend the term of the Agreement to expire on June 30, 2023.

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Herndon, Virginia that the Mayor of the Town of Herndon, Virginia is authorized to sign and deliver this Second Extension of Sublicense on such form approved by the Town Attorney and any other instrument necessary to evidence or effectuate this agreement.

Second Extension of Sublicense

This Second Extension of Sublicense dated June 14, 2022, hereby extends the June 30, 2022 termination date of the existing Sublicense between the Town of Herndon, a Virginia municipal corporation (Town) and The Elden Street Players d/b/a NextStop Theatre Company (Sublicensee), dated December 28, 2020 and as extended by the Extension of Sublicense dated December 27, 2021, for approximately 2,790 square feet of space located at 750 Center Street (the Sublicense) for a period of 1 year (the Extension).

THEREFORE, for the consideration stated in the Sublicense and herein, the parties agree as follows:

1. The Sublicense is incorporated by reference.
2. The Sublicense shall terminate on **June 30, 2023**.
3. In all other respects, the Sublicense is confirmed.

TOWN OF HERNDON, VIRGINIA	THE ELDEN STREET PLAYERS D/B/A NEXTSTOP THEATRE COMPANY
_____ Sheila A. Olem, Mayor	_____  Melody Fetske, President
ATTEST	APPROVED AS TO FORM
_____ Town Clerk	_____ Lesa J. Yeatts, Town Attorney

STAFF REPORT

Town Council
June 7, 2022

Title:

Ordinance, to approve and authorize the Mayor to sign a Third Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for rehearsal.

Staff Contact:

Lesa J. Yeatts, Town Attorney
(703) 787-7370
lesa.yeatts@herndon-va.gov

Scott Robinson, Director of Public Works
(703) 787-7388
scott.robinson@herndon-va.gov

Description:

Provided to you is a proposed Third Lease Extension between the Town and NextStop and a draft approving ordinance for consideration.

NextStop currently leases 1,275 sq. ft of space that is used for rehearsal in the Town's building at 397 Herndon Parkway. They also have an additional lease for space that is used for storage in the same building that is up for consideration tonight as well.

The current lease for rehearsal space will expire on June 30, 2022. As there were no other changes requested for the current lease, it was determined that another extension was desired and agreeable to all parties. This third lease extension extends the current lease term so that it will expire on June 30, 2023. The rent for this space is currently \$1.00 per lease term, consistent with similar leases on Town property and is proposed to remain the same.

Fiscal Impact:

Economic Development staff estimates market rent for this space to currently be valued at \$21.54 per square foot based on recent comparable rental spaces in the area.

Staff Recommendation:

The Mayor and Town Council adopt the attached ordinance as proposed.

Attachments:

1. Ordinance
2. Extension of Lease

Prepared and Approved by:



Lesa J. Yeatts, Town Attorney



Scott Robinson, Director of Public Works

TOWN OF HERNDON, VIRGINIA

ORDINANCE

JUNE 14, 2022

Ordinance – to approve and authorize the Mayor to sign a Third Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for rehearsal.

BE IT ORDAINED by the Town Council for the Town of Herndon, Virginia that:

1. The Town Council approves this Third Extension of Lease dated June 14, 2022. This instrument extends the expiration date of the original Lease Agreement dated October 15, 2019, as amended by the Emergency Extension dated September 18, 2020, as amended by the Second Extension dated October 8, 2021, for a period of 1 year, to June 30, 2023.
2. In all other respects the original lease remains in effect.
3. The Mayor is authorized to sign and deliver the Third Extension of Lease as described in paragraph 1 above and any related document necessary to evidence or effect the lease amendment.
4. This ordinance shall be effective on and after the date of its adoption.

Third Extension of Lease

This Third Extension of Lease dated June 14, 2022, hereby extends the June 30, 2022 termination date of the existing Lease between the Town of Herndon, a Virginia municipal corporation (Town) and The Elden Street Players d/b/a NextStop Theatre Company (Tenant), dated October 15, 2019, as extended by the Emergency Extension dated September 18, 2020, as extended by the Second Extension dated October 8, 2021, for space in a portion of the Town's building located at 397 Herndon Parkway for rehearsal (Lease) for a period of 1 year (Extension).

THEREFORE, for the consideration stated in the Lease and herein, the parties agree as follows:

1. The Lease is incorporated by reference.
2. The Lease shall terminate on **June 30, 2023**.
3. In all other respects, the Lease is confirmed.

TOWN OF HERNDON, VIRGINIA _____ Sheila A. Olem, Mayor	THE ELDEN STREET PLAYERS D/B/A NEXTSTOP THEATRE COMPANY  _____ Melody Fetske, President
ATTEST _____ Town Clerk	APPROVED AS TO FORM _____ Lesa J. Yeatts, Town Attorney

STAFF REPORT

Town Council

June 7, 2022

Title:

Ordinance, to approve and authorize the Mayor to sign a Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for storage.

Staff Contact:

Lesa J. Yeatts, Town Attorney
(703) 787-7370
lesa.yeatts@herndon-va.gov

Scott Robinson, Director of Public Works
(703) 787-7388
scott.robinson@herndon-va.gov

Description:

Provided to you is a proposed Lease Extension between the Town and NextStop and a draft approving ordinance for consideration.

NextStop currently leases approximately 250 sq. ft. of space at the Town's building at 397 Herndon Parkway that is solely used for storage. They also have an additional lease for space that is used for rehearsal in the same building that is up for consideration tonight as well.

The current lease for storage space will expire on June 30, 2022. As there were no other changes requested for the current lease, it was determined that an extension was desired and agreeable to all parties. This lease extension extends the current lease term so that it will expire on June 30, 2023. The rent for this space is currently \$1.00 per lease term, consistent with similar leases on Town property and is proposed to remain the same.

Fiscal Impact:

Economic Development staff estimates market rent for this space to currently be valued at \$21.54 per square foot based on recent comparable rental spaces in the area.

Staff Recommendation:

The Mayor and Town Council adopt the attached ordinance as proposed.

Attachments:

1. Draft Ordinance
2. Lease Extension

Prepared and Approved by:



Lesa J. Yeatts, Town Attorney



Scott Robinson, Director of Public Works

TOWN OF HERNDON, VIRGINIA

ORDINANCE

JUNE 14, 2022

Ordinance – to approve and authorize the Mayor to sign a Lease Extension between Town of Herndon and The Elden Street Players d/b/a NextStop Theatre Company, to extend the expiration date to June 30, 2023 for space at 397 Herndon Parkway for storage.

BE IT ORDAINED by the Town Council for the Town of Herndon, Virginia that:

1. The Town Council approves this Extension of Lease dated June 14, 2022. This instrument extends the expiration date of the original Lease Agreement dated June 8, 2021, for a period of 1 year, to June 30, 2023.
2. In all other respects the original lease remains in effect.
3. The Mayor is authorized to sign and deliver the Extension of Lease as described in paragraph 1 above and any related document necessary to evidence or effect the lease amendment.
4. This ordinance shall be effective on and after the date of its adoption.

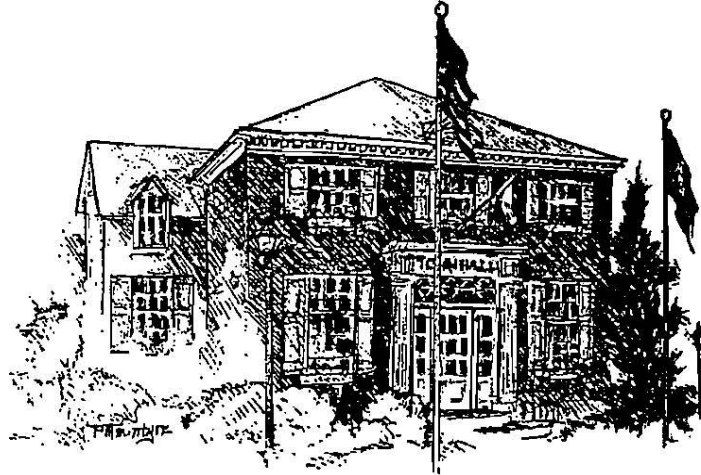
Extension of Lease

This Extension of Lease dated June 14, 2022, hereby extends the June 30, 2022 termination date of the existing Lease between the Town of Herndon, a Virginia municipal corporation (Town) and The Elden Street Players d/b/a NextStop Theatre Company (Tenant), dated June 8, 2021, for space in a portion of the Town's building located at 397 Herndon Parkway for storage (Lease) for a period of 1 year (Extension).

THEREFORE, for the consideration stated in the Lease and herein, the parties agree as follows:

1. The Lease is incorporated by reference.
2. The Lease shall terminate on **June 30, 2023**.
3. In all other respects, the Lease is confirmed.

TOWN OF HERNDON, VIRGINIA _____ Sheila A. Olem, Mayor	THE ELDEN STREET PLAYERS D/B/A NEXTSTOP THEATRE COMPANY  _____ Melody Fetske, President
ATTEST _____ Town Clerk	APPROVED AS TO FORM _____ Lesa J. Yeatts, Town Attorney



TOWN OF HERNDON, VIRGINIA
PROCLAMATION
LESBIAN, GAY, BISEXUAL & TRANSGENDER (LGBTQ+)
PRIDE MONTH
JUNE 2022

Lesbian, gay, bisexual & transgender (LGBTQ+) Americans have made and continue to make great and lasting contributions that strengthen the fabric of American society. LGBTQ+ individuals come from all regions, ethnicities, religions, backgrounds, and socioeconomic status, and significantly contribute to our community across all professions and family structures. The nature of that intersectionality further enriches us all with enhanced awareness of, and appreciation for, the diversity that makes our community more vibrant, more welcoming, and more American.

For more than two centuries, our nation has struggled to transform the ideals of liberty and equality from founding promise into lasting reality. LGBTQ+ Americans have worked tirelessly on the next chapter of that history ~ from the patrons of The Stonewall Inn who awakened a movement; to service members being honest about who they love; to marriage equality; to brave young people who come out and speak out every day.

Therefore, the Mayor and Town Council of the Town of Herndon, Virginia, hereby proclaim June 2022 as **Lesbian, Gay, Bisexual & Transgender (LGBTQ+) Pride Month**; recognize the injustice and prejudice the LGBTQ+ community has worked to overcome; encourage advocates who are dedicated to equality; recognize the impact that LGBTQ+ individuals have on our community; and commit to standing in solidarity with the LGBTQ+ community in eliminating prejudice everywhere.

Further, the Town of Herndon, Virginia, hereby celebrates the great diversity of the American people and our residents and encourages waving flags of Pride high during Pride Month and throughout the year.