



## **TOWN COUNCIL REGULAR MEETING AGENDA**

Town Council Chambers  
765 Lynn Street, Herndon, VA 20170

Tuesday, January 23, 2024 | 7:00 PM

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### **1. Call to Order**

### **2. Pledge of Allegiance to the Flag of the United States of America**

### **3. Presentations/Reports/Comments**

- a. Town Manager Report
- b. Councilmember Comments

### **4. Comments from the Audience**

*Members of the public may, for one 3-minute period, provide public comments, requests, consent or general item comments, and comments on matters not included on the agenda.*

### **5. Public Hearings**

- a. Resolution 24-G-06 to approve Special Exception SE #23-01, 630 Dranesville Road, Herndon Elementary School Renovation & Addition, to allow an addition to the existing public school building
- b. Resolution 24-G-07 to approve an amendment to Special Exception SE #21-03, 1315 and 1317 Monroe Street, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District

### **6. General**

- a. Resolution 24-G-08 to provide Town Council Guidance on the development of the Town Manager's Proposed FY 2025 Budget

### **7. Consent**

- a. Resolution 24-G-09 to approve a revision to the approved Master Plan, for the Chestnut Grove Cemetery, an element within the Comprehensive Plan of the Town of Herndon

- b. Resolution 24-G-10 to repeal Resolution 23-G-52 and to endorse and authorize a substitute funding amount on VDOT FY2027 and FY2028 Revenue Sharing Program funding application towards the VDOT-administered 'East Elden Street Widening and Improvements (UPC 50100)'
- c. Ordinance 24-O-02 to amend the Herndon Town Code, Chapter 2 (ADMINISTRATION), Article I (In General), Section 2.1 to clarify the rescheduling of meetings
- d. Ordinance 24-O-03 to approve and authorize the mayor to sign a lease agreement between the Town and Board of Supervisors of Fairfax County, Virginia, for office space at 397 Herndon Parkway
- e. Resolution 24-G-11 to appoint a member to the Herndon Youth Advisory Committee
- f. Resolution 24-G-12 to appoint the Town of Herndon's elected official representative to the Northern Virginia Transportation Authority's Planning Coordination Advisory Committee (NVTAPCAC)
- g. December 5, 2023 Town Council Work Session Minutes
- h. December 12, 2023 Town Council Regular Meeting Minutes

## **8. Adjournment**

Interpretación en Español está disponible en esta sesión.



**Agenda Item:**     **Resolution 24-G-06 to approve Special Exception SE #23-01, 630 Dranesville Road, Herndon Elementary School Renovation & Addition, to allow an addition to the existing public school building**

**Meeting Date:**     January 23, 2024

**Category:**             Public Hearings

**Prepared by:**       Ben Schitter, Development Program Manager

**Description:**

SE #23-01 is an application for a special exception to allow renovation and expansion of an existing public school land use. An approval would allow the applicant to build a permanent addition to the existing public school building as part of a comprehensive renovation project that will bring the school up to applicable building code standards and educational requirements. The proposal also includes removal of the existing trailer/modular classrooms, expansion and redesign of parking to accommodate the school design capacity, installation of the Town standard streetscape, updated recreational facilities, installation of stormwater facilities, and enhancement of the landscaping. See attachment titled, "SE #23-01 SE Plan" for the physical improvements to the site.

The applicant submitted a traffic study. See attachment titled, "SE #23-01 Traffic Study". The study includes an assessment of the project's proposal to improve its internal vehicle circulation was the primary purpose of the traffic study. The study also provided an operational analysis which concluded that the intersection of Dranesville Road and the two entrances would continue to operate at an acceptable level of service.

Staff has generated recommended conditions for this Special Exception, which are included as an attachment. See attachment titled, "SE #23-01 Draft Conditions". One update was made to the Draft Conditions Attachment since the January 16, 2024 work session, which is a revision to Condition #5 for conciseness. The conditions of this special exception are required to be recorded in the land records of Fairfax County to ensure any future property owners are aware of the restrictions.

**Background:**

The existing site is located at 630 Dranesville Road and has an area of approximately 13.89 acres. The existing school building has received several additions since it's original development in 1961 and is currently over 85,000 square feet of gross floor area.

Overcrowding continued to be an issue at the school. Two legislative actions were previously approved for this property. In 1998, a conditional use permit (CU #97-6) was approved by town council. This use permit allowed for the continued use of the elementary school and to allow for modular structures. In 2014 a special exception (SE #13-08) was approved by town council which permitted the use of two temporary portable classrooms trailers to accommodate existing students with the condition that a long-term solution is established.

The case was presented to the Planning Commission regular meeting on November 27, 2023. The commission voted unanimously to continue the application to the December 18, 2023 regular meeting. The decision was made after listening to public comment, which led to the commission requesting the applicant host an additional community outreach meeting. The planning commission recommended approval with conditions at their public hearing on December 18, 2023.

**Budget Impact:**

None

**Recommendation:**

Staff recommends that the Town Council approve the amendment with conditions to Special Exception SE #23-01. Staff believes this proposal with the proposed conditions meets the Zoning Ordinance criteria for approval of a special exception as seen in the staff report.

**Attachments:**

1. Staff Report
2. Resolution (Proposed)
3. Draft Conditions
4. SE #23-01 SE Plan
5. SE #23-01 Traffic Study

## STAFF REPORT

**Agenda Item:** Resolution to approve Special Exception SE #23-01, 630 Dranesville Road, Herndon Elementary School Renovation & Addition, to allow an addition to the existing public school building

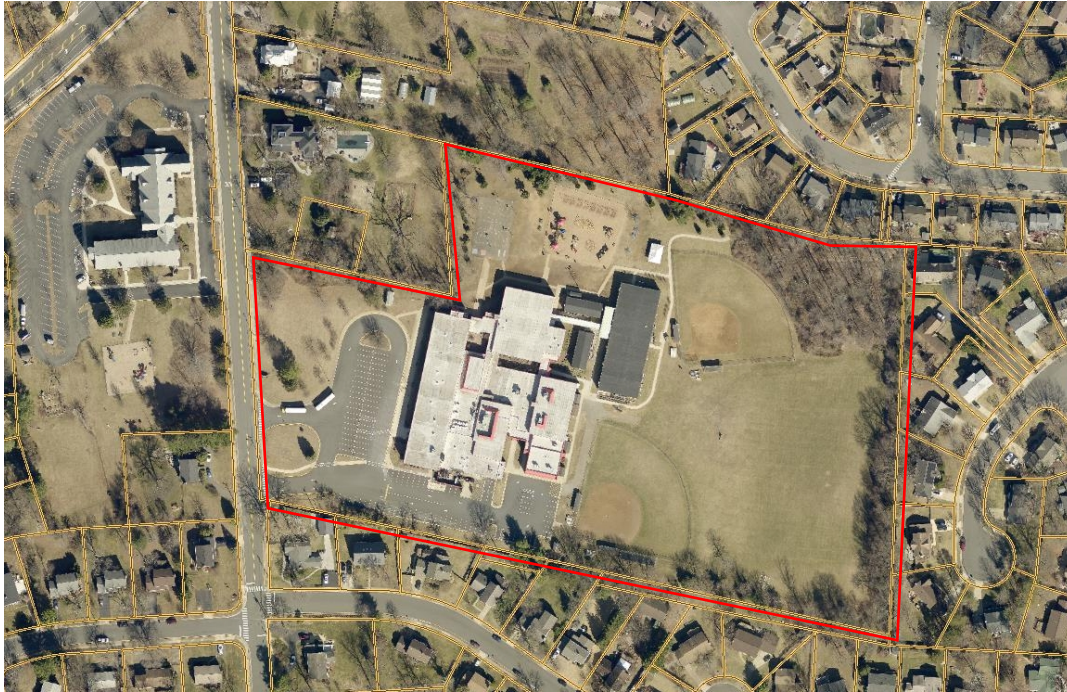
**Meeting Date:** January 23, 2024

**Staff Contact:** Ben Schitter, Development Program Planner

### Summary Information:

|                                         |                                                                                                                                                                                                                                                                              |  |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Proposed Modification                   | An application for a special exception to allow renovation and expansion of an existing public school land use.                                                                                                                                                              |  |
| Address                                 | 630 Dranesville Road, Herndon, VA                                                                                                                                                                                                                                            |  |
| Fairfax County Tax Map Number           | 0104 02 0066A                                                                                                                                                                                                                                                                |  |
| Owners                                  | School Board of Fairfax County                                                                                                                                                                                                                                               |  |
| Applicant                               | Fairfax County Public Schools (Najib Hameed, Coordinator III)                                                                                                                                                                                                                |  |
| Property Use                            | Public School                                                                                                                                                                                                                                                                |  |
| Zoning District                         | R-10, Residential Single Family District                                                                                                                                                                                                                                     |  |
| Adjacent Zoning                         | <p><b>North:</b> R-10, Residential Single Family      <b>East:</b> R-10, Residential Single Family</p> <p><b>South:</b> R-10, Residential Single Family      <b>West:</b> R-10, Residential Single Family</p> <p><b>Northeast:</b> PD-R, Planned Development Residential</p> |  |
| Total Site Area                         | ~13.89 Acres                                                                                                                                                                                                                                                                 |  |
| Proposed Density                        | 0.214 FAR                                                                                                                                                                                                                                                                    |  |
| Existing Building Sizes                 | <p>School Building: 85,165 sf</p> <p>Modular Classrooms: 15,264 sf</p>                                                                                                                                                                                                       |  |
| Comprehensive Plan Land Use Designation | Community Facilities                                                                                                                                                                                                                                                         |  |

### **Location Map:**



### **Background & Site Description:**

The existing site is located at 630 Dranesville Road about 200 feet north of the corner of Dranesville Road and Fillmore Street. The site has an area of approximately 13.89 acres. The site comprises of an 85,165 gross square foot elementary school building and 15,264 gross square foot modular trailer classrooms as well as a parking lot and recreational facilities. The elementary school was built in 1969. The school currently has an enrollment of about 800 students. The existing design capacity based on Fairfax County Public Schools is 1,232 students. A small, wooded area in the northeast and some landscaping also exist on the site.

The site has a parking lot with 103 spaces and is served by two entrances on Dranesville Road. The southern entrance serves both ingress and egress traffic movements and serves as the sole driveway for all entering school buses, staff and student pick-up/drop-off operations. The northern entrance functions as the school bus and limited school staff egress. School bus movements must mingle with staff and pick-up/drop-off vehicular movements. Pedestrians can enter the site from the public sidewalk along Dranesville or through gates in the rear which are accessed by asphalt trails.

In 1998, a conditional use permit (CU #97-6) was approved by Town Council. Conditional use permits were the former name for special exceptions. This use permit allowed for the continued use of the elementary school and to allow for modular structures.

In 2014 a special exception (SE #13-08) was approved by Town Council which permitted the use of two temporary portable classrooms trailers to accommodate existing students with the condition that a long-term solution is established.

### **Case Details & Proposal:**

The applicant is seeking special exception approval to build a permanent addition to the existing public school building as part of a comprehensive renovation project that will bring the school up to applicable building code standards and educational requirements. Educational use is permitted in the R-10 district through a special exception.

The proposal as shown on the special exception plan (see attachment titled SE #23-01 SE Plan) includes removal of the existing trailer/modular classrooms and constructing a new addition to elementary school. The total proposed gross floor area is 129,204 sf. The proposed student design capacity based on Fairfax County Public Schools is 1,050 (178 fewer students allowed than the existing student design capacity). The proposal also includes an increase of the parking onsite to 170 spaces including 6 dedicated accessible spaces to exceed the requirements of the zoning ordinance which is established by the student capacity at one (1) space for every fifteen (15) students. The two vehicular entrances will remain in the proposed conditions but will now be detached internally to separate school buses and student drop-off/pick-up vehicular movements to create a safer more efficient environment. The design of the site also incorporates the Standard Streetscape from the Town of Herndon Streetscape Manual, which includes a 5' wide tree zone, and 5' wide concrete sidewalk. The proposal also includes recreational facilities to replace and enhance the existing onsite amenities as well as provide better onsite pedestrian circulation. The development will preserve a large portion of the wooded area to the northeast as well as provide new landscape plantings. Stormwater requirements will be met onsite.

The applicant has held two "Design Feedback and Engagement Committee" meetings on March 31, 2022 and October 4, 2022 which consisted of school leadership, faculty, PTA representatives, and community members. Additionally, there was a community meeting held on March 20, 2023, at Herndon ES. Per the Planning Commission

recommendation, the applicant held an additional community meeting on December 14, 2023.

#### Planning Commission

The case was presented to the Planning Commission regular meeting on November 27, 2023. The commission voted to continue the application to the December 18, 2023 regular meeting. The decision was made after listening to public comment which led to the commission requesting the applicant host an additional community outreach meeting. The Planning Commission recommended approval with conditions at their public hearing on December 18, 2023.

#### **Staff Analysis:**

#### Zoning Ordinance Compliance

Section 78-155.3(e)(1) of the zoning ordinance contains standards applicable to all special exceptions as seen below under the review criteria section.

#### Review Criteria

The table below includes an assessment of compliance with the criteria for review of Zoning Map Amendments found in Zoning Ordinance Section 78-155.3(e)(1), which incorporates the requirements of §15.2-2284 of the Code of Virginia.

| <b>Criteria from Section 78-155.3(e)(1)</b>                                                                                                                | <b>Meets or Does Not Meet</b> | <b>Why the application meets or does not meet the criteria of Section 78-155.3(e)(1)</b>                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Is consistent with the Comprehensive Plan                                                                                                                  | Meets                         | The existing and proposed use of public school meets the intent of the community facilities land use designation. |
| Is free of conflict with any provision of this chapter and related town regulations or any other applicable local, state, or federal laws and regulations. | Meets                         | The development is not in conflict with any regulations.                                                          |

| <b>Criteria from Section 78-155.3(e)(1)</b>                                                                                                                                                                       | <b>Meets or Does Not Meet</b> | <b>Why the application meets or does not meet the criteria of Section 78-155.3(e)(1)</b>                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Does not adversely affect the health or safety of persons residing or working in the neighborhood of the proposed use.                                                                                            | Meets                         | The development enhances the safety of pedestrian and vehicular movements through the redesign of the internal vehicular area.                    |
| Consistent with the purpose and intent of the zoning district in which it is located or will improve compatibility among uses and will ensure efficient development within the Town.                              | Meets                         | The development is allowed with special exception approval per the R-10 zoning District.                                                          |
| Minimizes adverse visual impact of the proposed use on adjacent lands.                                                                                                                                            | Meets                         | The proposal includes additional landscaping beyond the required zoning ordinance requirements to help screen the building on all property lines. |
| Contributes to a logical and orderly development pattern consistent with accepted or emerging planning practices.                                                                                                 | Meets                         | The development is consistent with accepted planning practices.                                                                                   |
| Minimizes adverse impact on surrounding lands regarding service delivery, parking and loading, odors, noise, glare, and vibration, and should not create a nuisance.                                              | Meets                         | The site will be enhanced by the separation of internal traffic and will function more efficiently.                                               |
| Avoids significant adverse impacts on the property values of surrounding lands or substantially and permanently injures the use of neighboring property for those uses that are permitted in the zoning district. | Meets                         | The school renovation will improve on the existing site and building.                                                                             |



| <b>Criteria from Section 78-155.3(e)(1)</b>                                                                                                                                                                                                                                                                                                                   | <b>Meets or Does Not Meet</b> | <b>Why the application meets or does not meet the criteria of Section 78-155.3(e)(1)</b>                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Does not significantly and adversely impact the natural environment, including but not limited to water, air, noise, stormwater management, wildlife, vegetation, wetlands, and the natural functioning of the environment.                                                                                                                                   | Meets                         | The required stormwater mitigation will be treated onsite. Existing vegetation is preserved while providing new native landscaping.                                                                                                                                                                                |
| 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 and whether or not the proposed use is designed to ensure safe ingress and egress onto the site and safe road conditions on and around the site. | Meets                         | The ingress and egress to the site is redesigned to create a safer environment for pedestrians and vehicular movements. The pick-up/drop-off queuing is improved by the proposed design which will help alleviate the traffic during the peak pick-up/drop-off times.                                              |
| Results in development that is adequately served by public facilities (roads, potable water and sewage, schools, parks, police, and fire and emergency medical facilities).                                                                                                                                                                                   | Meets                         | The development is adequately served by public facilities. The standard streetscape will be provided with this development.                                                                                                                                                                                        |
| If 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.                                                                                                                                                             | Meets                         | The development is consistent with the community facilities land use designation of the comprehensive plan. The development will provide high quality facilities to serve Town residents and those that work in the Town. The facilities will be developed in an environmentally sensitive and sustainable manner. |



| <b>Criteria from Section 78-155.3(e)(1)</b>                                        | <b>Meets or Does Not Meet</b> | <b>Why the application meets or does not meet the criteria of Section 78-155.3(e)(1)</b> |
|------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------|
| If located in the floodplain overlay district, meets floodplain overlay standards. | Not Applicable                | The site is not located in a floodplain.                                                 |

### Transportation Considerations

The applicant submitted a traffic study (see attachment titled SE #23-01 Traffic Study). An assessment of the project's proposal to improve its internal vehicle circulation was the primary purpose of the traffic study. The study found that the proposal physically separates the bus circulation and student pick-up/drop-off area thereby eliminating vehicular conflicts and improving safety between users. This also enhances the pedestrian circulation by eliminating the key internal pedestrian/vehicular conflicts that currently exist. The proposal also improves the on-site vehicle stacking distance to provide 42 additional vehicles to a total of 60 vehicles for student pick-up/drop-off and provides a more efficient exiting traffic flow. Reduced vehicle queues will improve the short-term traffic disruptions along Dranesville Road.

The study also provided an operational analysis which concluded that the intersection of Dranesville Road and the two entrances would continue to operate at an acceptable level of service.

The property proposes to add 63 parking spaces to provide a total of 170 spaces on-site. The required parking per zoning ordinance is 70 spaces at a rate of 1 space per 15 students. The additional parking will help alleviate the overcrowding onsite.

### Analysis of Conditions

Conditions of approval may be imposed on Special Exceptions to offset impacts and address any particular concerns unique to the proposal. Staff has generated recommended conditions for this Special Exception, which are included as an attachment (see attachment titled SE #23-01 Draft Conditions). The conditions of this special exception are required to be recorded in the land records of Fairfax County to ensure any future property owners are aware of the restrictions. Below is a summary of the conditions.

| # | Condition subject              | Analysis of condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Substantial Conformity         | This is standard legal language that ensures the site plan is within substantial conformance with the SE plan and thus ties the project to the proposal as defined, reviewed and approved through this legislative process                                                                                                                                                                                                                                                                               |
| 2 | Use Permitted                  | This is standard legal language that describes the use permitted with the special exception.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3 | Student Capacity               | This condition limits the capacity of the school to 1,050 students. If FCPS seeks to exceed this number, a subsequent special exception will be required.                                                                                                                                                                                                                                                                                                                                                |
| 4 | Invasive Vegetation Management | This condition is imposed to ensure the site plan addresses the treatment of invasive plant material on-site. Management of invasive plant material is imperative to the long-term health of the forest as the plant material can lead to degradation of forests and eventual tree failure.                                                                                                                                                                                                              |
| 5 | Landscape Plan                 | This condition requires that the landscape plan will achieve a greater species diversity than that required by the zoning ordinance and the plant material shall be primarily native as is typical with current environmental practices. Biodiversity is crucial for landscapes to contribute to ecological stability and overall ecosystem health. The condition also ensures the landscape will be maintained in accordance with the plan which will lead to long term aesthetic and ecological value. |
| 6 | Screening                      | This condition ensures no roof mounted equipment can be visible from the property lines or generate noise that would have visual and audible impacts to nearby residential properties.                                                                                                                                                                                                                                                                                                                   |
| 7 | Utility Poles                  | This condition ensures that no additional utility poles or overhead utility lines will be provided. New utilities must be located underground.                                                                                                                                                                                                                                                                                                                                                           |

| #  | Condition subject | Analysis of condition                                                                                                                                                                                                                                          |
|----|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | Athletic Fields   | This condition guarantees the athletic field hours of use for all users shall be limited to 8:00 AM to 9:00 PM and no overhead lighting is allowed for the athletic fields.                                                                                    |
| 9  | Modular Trailers  | This condition is to ensure all modular trailers are removed from the site prior to release of public facilities surety related to the site plan                                                                                                               |
| 10 | Traffic Attendant | This condition requires a certified traffic attendant must be present to control traffic in the right-of-way if vehicular queueing extends to the public right-of-way. This will help ensure no deterioration of the level of service at the entrances occurs. |
| 11 | Streetscape       | This condition guarantees the streetscape is installed with a minimum 5' tree verge and 5' sidewalk to provide a safe and comfortable environment in an area of high pedestrian activity                                                                       |
| 12 | PD-R Zone Fencing | This condition ensures the fencing between the PD-R zone and the subject property is installed if the trees in the buffer area fail or are removed.                                                                                                            |

**Fiscal Impact:**

This proposal does not have a direct fiscal impact on the Town.

**Town Council Alternatives:**

The following alternatives are available to the Town Council for its decision on SE #23-01.

1. Recommendation for approval.
2. Recommendation for approval with conditions.
3. Recommendation for denial.
4. Continuance of the application to February 13, 2024.

**Staff Recommendation:**

Staff recommends that the Town Council approve the amendment to Special Exception SE #23-01, in accordance with Alternative #2. Staff believes this proposal with the proposed conditions meets the criteria for approval of a special exception.

**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution-      to approve Special Exception SE #23-01, 630 Dranesville Road, Herndon Elementary School Renovation & Addition, to allow an addition to the existing public school building**

The applicant, Fairfax County Public Schools, has submitted a Special Exception, SE #23-01, on land identified as Fairfax County Tax Map Number 0104 02 0066A, to permit an addition to the existing public school building located at 630 Dranesville Road.

On December 18, 2023, the Planning Commission recommended that the special exception with conditions be approved based upon the finding that the proposed use meets the purpose and intent of the Zoning Ordinance.

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 recommended that the application be approved with conditions based upon the finding that the conditions still meet the purpose and intent of the Zoning Ordinance, in particular Section 78-155.3(f)(3).

**THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Herndon, Virginia that:

1. Special Exception SE #23-01 is approved in accordance with the special exception plan dated October 18, 2023 that shall run with the land and not be voided or extinguished from a change in ownership of the property in accordance with the conditions set forth below to achieve compliance with the standards found in Section 78-155.3;

**[INSERT CONDITIONS]**

## **DRAFT CONDITIONS**

### **SPECIAL EXCEPTION SE #23-01**

#### **Herndon Elementary School Renovation & Addition**

**December 18, 2023**

1. Substantial Conformity. The development and maintenance of the special exception use described in Condition 2 below, shall be in substantial conformance with the plan set entitled “Herndon Elementary School Renovation & Addition”, prepared by Rinker Design Associates, P.C. and dated October 18, 2023 (the Plan”) incorporated by reference, and the Town of Herndon Zoning Ordinance (the “Zoning Ordinance”). Approval of this application on the parcel identified as Fairfax County Tax Map Number 0104-020066A, known as the Herndon Elementary School (the “Property”), shall not relieve the applicant or the owners of the Property, or their successors or parties developing, establishing, or operating the approved special exception, from the obligation to comply with and conform to any other Zoning Ordinance, codified ordinance, or regulatory requirement.
2. Use Permitted: This special exception grants approval of an expansion and renovation of an existing public school use in the location shown on Sheet C.04 of the Plan in accordance with Table 78-30.2(c)(3), Section 78-30.2 for the R-10, Residential single-family zoning district, as set forth in the Zoning Ordinance (“Special Exception Use”).
3. Student Capacity. After the construction of the Special Exception Use the capacity of the school is limited to 1,050 students, unless amended by the approval of a subsequent special exception.
4. Invasive Vegetation Mitigation. An invasive vegetation mitigation plan is required at the time of site plan that implements effective onsite mitigation measures to address the presence of invasive plant material that poses a threat to the natural environment. Invasive trees may not count toward meeting landscape requirements. As part of this effort, all non-native invasive vines must be promptly cut and treated to prevent further spread. Additionally, the applicant must undertake the eradication of poison ivy present onsite to ensure the safety and well-being of users.
5. Landscape Plan. The landscape plan included in the site plan must be in substantial conformance with the landscape plan on sheet C.06 of the Plan and shall adhere to the applicable Zoning Ordinance requirements. The landscape plan shall provide a vegetated buffer of the school property to the neighboring properties through the use of a mix of deciduous understory, deciduous canopy and evergreen trees, as determined by the Town Arborist. Landscaping must be maintained in accordance with the approved plan and any dead or diseased trees replaced. Landscaping shall be subject to inspection, upon reasonable notice, by the Town Arborist.

In order to promote biodiversity, 10% maximum of each species of deciduous shrubs, 10% maximum of each species of deciduous trees, 25% maximum of each species of evergreen shrubs, and 25% maximum of each species of evergreen trees shall be specified.

The species selection shall be native plants unless otherwise approved by the Town Arborist.

6. Screening. Roof mounted screening must be provided to ensure that no roof mounted mechanical equipment is visible from any property line and that any noise generated by the equipment is compliant with the maximum limits established in the Zoning Ordinance. An acoustical study shall be provided following installation of mechanical equipment and prior to final occupancy to verify noise levels are compliant with the zoning ordinance.
7. Utility Poles. No additional utility poles or overhead utility lines beyond the existing utility poles and overhead lines shown on sheet C.03 of the Plan, are permitted on-site. Additional utilities must be located underground if the existing poles cannot accommodate required or future improvements.
8. Athletic fields. The athletic field hours for outdoor events and activities shall be limited to 8:00 AM to 9:00 PM daily. Lighting of the athletic fields is prohibited.
9. Modular trailers. All modular or temporary trailers must be removed from the Property prior to release of the public facilities surety related to the site plan for the Property. Any proposed modular trailers must obtain a Temporary Use Permit through the Town of Herndon.
10. Traffic Attendant. When site operations cause vehicular queues to extend into the public right-of-way, the applicant must provide a certified individual to control vehicular operations within the right-of-way.
11. Streetscape. The streetscape improvements as conceptually shown on sheet C.04 of the Plan shall be secured with a public facilities surety and shown on the site plan for the Property. Applicant will provide a minimum 11-foot streetscape easement to incorporate a minimum 5-foot sidewalk, 5-foot verge, landscaping, utilities, and streetlights. Exact locations of the aforementioned components will be determined prior to approval of the site plan and streetscape improvements shall comply with PROWAG (Pedestrian Right of Way Accessibility Guidelines) to the maximum extent practicable.
12. PD-R zone fencing. The fencing required by Sec. 78-110.4(e)(3) of the Zoning Ordinance between the PD-R zoning district properties and the subject property must be installed if the existing trees in the buffer area shown on Sheet C.06 of the Plan, fail or are removed.



NOTES

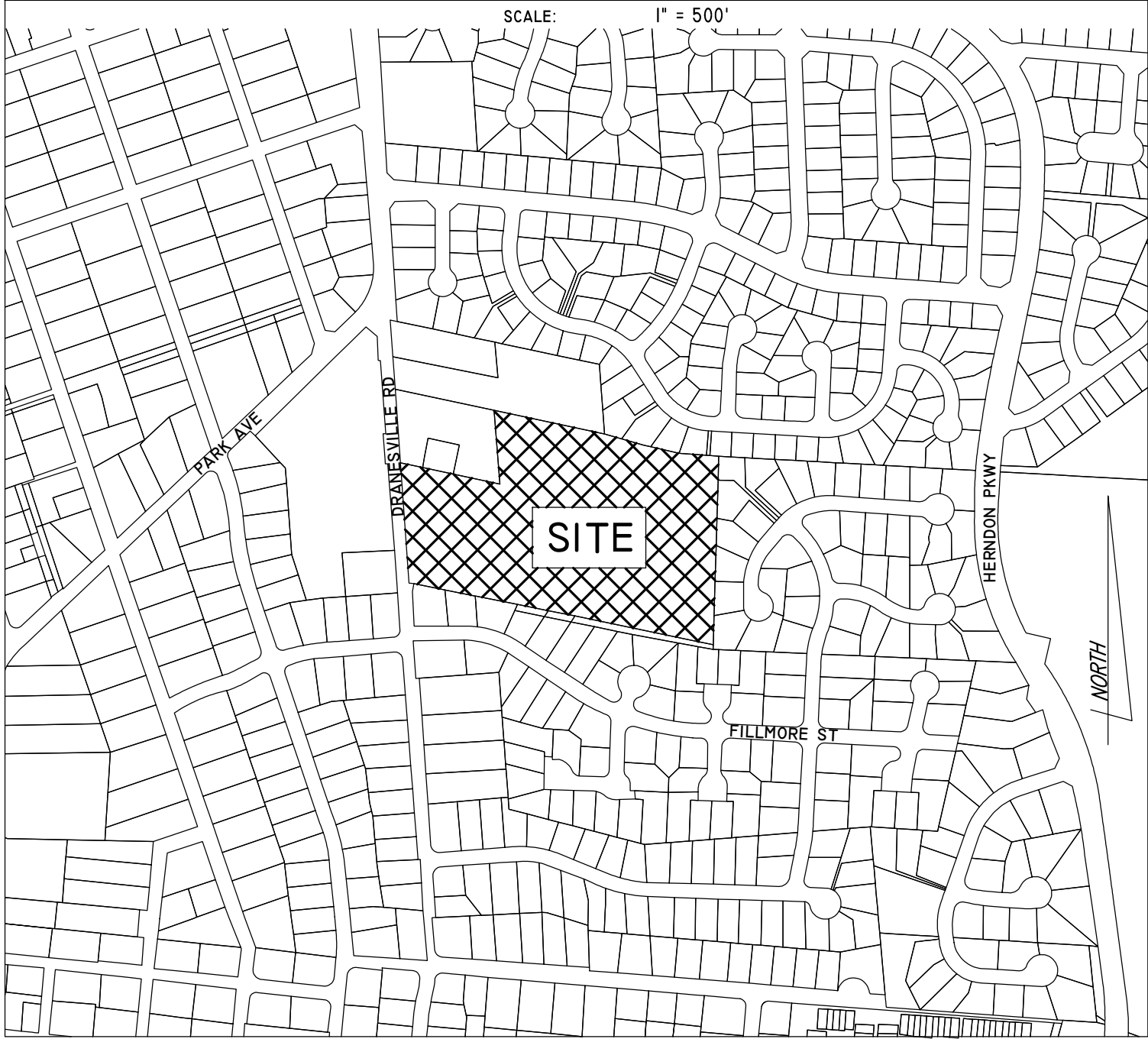
1. THE METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS HEREIN SHALL CONFORM TO THE CURRENT TOWN OF HERNDON STANDARD SPECIFICATIONS, CURRENT FAIRFAX COUNTY DESIGN AND CONSTRUCTION STANDARDS, AND THE CURRENT VDOT ROAD AND BRIDGE SPECIFICATIONS. IN THE EVENT OF CONFLICT BETWEEN THE STANDARDS AND SPECIFICATIONS, PREVAILING GUIDELINES SHALL BE SELECTED BY THE TOWN OF HERNDON.
2. A PERMIT MUST BE OBTAINED FROM THE TOWN OF HERNDON BEFORE ANY CONSTRUCTION IS STARTED IN CONFORMITY WITH THESE PLANS.
3. A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE RESIDENT ENGINEER, VDOT, FAIRFAX, VIRGINIA, BEFORE ANY CONSTRUCTION IS STARTED ON ANY EXISTING STATE HIGHWAY.
4. THE DEVELOPER IS REQUIRED TO NOTIFY THE TOWN OF HERNDON, PRIOR TO THE BEGINNING OF CONSTRUCTION. THE DEVELOPER SHALL REQUIRE THAT ALL OF HIS CONTRACTORS SPECIFICALLY REQUEST INSPECTION AT LEAST TWENTY FOUR (24) HOURS BEFORE BEGINNING:
- (A) CLEARING AND GRUBBING
- (B) INSTALLATION OF SILTATION AND EROSION CONTROL MEASURES
- (C) EARTHWORK
- (D) INSTALLATION OF ANY UNDERGROUND UTILITY
- (E) INSTALLATION OF ANY FORMS
- (F) PLACING ANY CONCRETE
- (G) BEFORE PLACING SUBBASE, BASE, OR PAVING SURFACE
- FAILURE TO DO SO FOR ANY REASON SHALL CONSTITUTE REJECTION OF SAID WORK.
5. ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY THE DEVELOPER OR HIS ENGINEER PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF THESE UTILITIES.
6. ALL UTILITIES INSTALLED AS A PART OF THIS DEVELOPMENT SHALL BE PLACED UNDERGROUND.
7. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT OF WAY AND ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT OF WAY LINE PRIOR TO THE INSTALLATION OF ANY SUBBASE MATERIAL, CURB AND GUTTER, OR SIDEWALK.
8. ALL UTILITIES TO BE TAKEN OVER BY THE TOWN FOR MAINTENANCE PURPOSES, MUST BE INSPECTED, TESTED AND APPROVED BY THE TOWN BEFORE BEING ACCEPTED INTO THE TOWN'S SYSTEM.
9. CUT SHEETS SHALL BE SUBMITTED TO AND APPROVED BY THE TOWN OF HERNDON PRIOR TO THE START OF CONSTRUCTION OF ANY UNDERGROUND UTILITIES, STREETS, OR CURBS AND GUTTERS.
10. SANITARY SEWERS: ALL SANITARY SEWER MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH THE CURRENT TOWN OF HERNDON STANDARDS AND SPECIFICATIONS AS WELL AS WITH THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL.
11. STORM SEWERS:
- (A) STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE TO CONFORM TO THE CURRENT A.A.S.H.T.O. DESIGNATION M 170, UNLESS OTHERWISE DESIGNATED ON THE PLANS. CLASS II PIPE WILL BE PERMITTED BEYOND THE LIMITS OF THE STREET RIGHT OF WAY. CLASS III PIPE WILL BE REQUIRED WITHIN THE LIMITS OF THE RIGHT OF WAY.
- (B) UNDERDRAINS AND/OR CROSSDRAINS SHALL BE INSTALLED BY THE DEVELOPER WHERE DEEMED NECESSARY BY THE TOWN OF HERNDON.
12. STREETS:
- (A) ALL BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. T-99 METHOD A, WITHIN PLUS OR MINUS 20% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT OF WAY AND ALL TOWNHOUSE STREETS, COMMERCIAL AND INDUSTRIAL PARKING LOTS, PRIVATE STREETS, PARKING BAYS, CURB AND GUTTER, AND SIDEWALKS ADJACENT TO STREETS AND PARKING LOTS (NOT INTENDED TO INCLUDE LEAD SIDEWALKS).
- (B) SOIL REPORTS AND SUBGRADE SPECIFICATIONS SHALL BE SUBMITTED TO THE TOWN OF HERNDON FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION OF ANY SIDEWALKS, CURB AND GUTTER, STREETS OR PARKING AREAS.
- (C) ROADWAY DESIGN IS BASED ON A CBR OF 10. CBR TESTS OF SUBGRADE SOILS MUST BE CONDUCTED FOR ACTUAL DETERMINATION OF ROADWAY DESIGN. ROADWAY DESIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT VDOT PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS, AND SHALL BE SUBMITTED TO THE TOWN FOR REVIEW AND APPROVAL.
- (D) STANDARD STREET NAME SIGNS SHALL BE APPROVED BY FAIRFAX COUNTY SIGN SHOP AND SHALL BE INSTALLED AT EACH INTERSECTION BY THE DEVELOPER, AS WELL AS REQUIRED TRAFFIC CONTROL SIGNS IN THE DEVELOPMENT. SIGN FASTENERS SHALL BE 5/16" #18 STAINLESS STEEL HEX BOLTS AND NUTS USS-NO RIVETS PERMITTED.
- (E) WHERE INSTALLATION OF ROADWAY SIGN IS ANYTHING OTHER THAN IN SOIL AREA, A PVC SLEEVE SHALL BE INSTALLED. SLEEVE SHALL BE MINIMUM 18" DEEP. SIZE OF PVC SLEEVE SHALL BE APPROPRIATE TO SIZE OF POST BEING INSTALLED, AND SHALL ALLOW FOR WEDGING TO STABILIZE SIGN POST.
- (F) WHERE SIGN IS DESIGNED TO BE INSTALLED IN CONCRETE MEDIAN, A 12" X 12" AREA SHALL BE LEFT VOID OF CONCRETE. PVC SLEEVE SHALL BE INSTALLED AS INDICATED ABOVE.
- (G) SIGN MATERIAL SHALL BE MINIMUM HIGH INTENSITY SHEETING, AND NO ENGINEER GRADE MATERIAL SHALL BE ALLOWED.
- (H) A MINIMUM OF ONE DRIVEWAY ENTRANCE SHALL BE PROVIDED PER LOT. DRIVEWAY ENTRANCES SHALL BE INSTALLED IN CONFORMITY WITH THE STANDARDS. PIPESTEM LOT DRIVEWAYS ARE SUBJECT TO APPROVAL BY THE TOWN OF HERNDON.
- (I) SURFACED STREETS SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST FREE AT ALL TIMES, AND ADEQUATE MEANS SHALL BE PROVIDED TO CLEAN TRUCKS AND OTHER EQUIPMENT USING THE COMPLETED STREETS.
- (J) PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. A PRE-CONSTRUCTION SURVEY SHALL OCCUR WITH CONSTRUCTION AND INSPECTION STAFF TO DOCUMENT EXISTING CONDITIONS. IF TOWN'S EXISTING PUBLIC INFRASTRUCTURE IS DAMAGED DURING CONSTRUCTION, THE APPLICANT SHALL REPAIR THE SAME TO THE SATISFACTION OF THE TOWN.
- (K) ALL STREET CUT AND PATCH WORK LOCATED IN PUBLIC RIGHTS OF WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF HERNDON STANDARDS AND SPECIFICATIONS. LIMITS OF ASPHALT OVERLAY TO BE DETERMINED BY TOWN INSPECTOR.
- (L) STREET LIGHTS SHALL BE INSTALLED ACCORDING TO TOWN OF HERNDON STANDARDS.
- (M) ALL WORK IN THE RIGHT-OF-WAY SHALL BE CONDUCTED BETWEEN 9AM AND 3PM, MONDAY THROUGH FRIDAY, EXCEPT HOLIDAYS.
- (N) DEVELOPER SHALL COMPLY WITH STREET CUT PERMIT REQUIREMENTS. COPY OF APPROVED STREET CUT PERMIT MUST BE KEPT ON SITE AT ALL TIMES.
- (O) DEVELOPER SHALL COORDINATE ALL TRAFFIC CONTROL ACTIVITIES WITH THE STREET CUT PERMIT INSPECTION SECTION (703-435-6860).
13. WATER DISTRIBUTION:
- (A) ALL WATER MAIN MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE REGULATIONS OF THE STANDARD SPECIFICATIONS AND PLANS OF THE TOWN OF HERNDON AND THE CURRENT WATERWORKS REGULATIONS OF THE VIRGINIA STATE BOARD OF HEALTH.
- (B) ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4.0 FEET. WATER MAINS SHALL BE INSTALLED EIGHT (8) FEET NORTH OR EAST OF THE CENTERLINE OF THE STREET UNLESS OTHERWISE DESIGNATED ON THE PLANS.
- (C) WORKING PRESSURE SHALL BE >20.0 PSI.
14. LAND CONSERVATION NOTES:
- (A) MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. HOWEVER, THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE TOWN OF HERNDON.
- (B) TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS.
- (C) ALL EROSION AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- (D) ALL STORM AND SANITARY SEWER TRENCHES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 7 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ANY ONE TIME.
- (E) ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED, WITHIN 7 DAYS AFTER BACKFILL.
- (F) ALL TEMPORARY EARTH BERM DIVERSIONS AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES FOR ALL STOCKPILES.
- (G) DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY SILT TRAPS, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
- (H) ALL DISTURBED AREAS NOT PAVED, SODDED, OR BUILT UPON BY NOVEMBER 1, OR DISTURBED AFTER THAT DATE, IS TO BE SEEDED WITHIN 7 DAYS WITH OATS, ABRUZZI RYE, OR EQUIVALENT AND MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE.
- (I) PRIOR TO BEGINNING OF ANY WORK ON THIS SITE, THE CONTRACTOR MUST READ AND ADHERE TO THE "VEGETATION PRESERVATION AND PLANTING" GUIDELINES OF FAIRFAX COUNTY PUBLIC FACILITIES MANUAL, AND SECTION 26, ARTICLE II OF THE TOWN CODE.
- (J) PRIOR TO THE PROJECT'S PRE-CONSTRUCTION MEETING AND PRIOR TO ANY LAND DISTURBANCE OF THE SITE, A CONSTRUCTION GENERAL PERMIT REGISTRATION STATEMENT MUST BE SUBMITTED TO THE TOWN FOR APPROVAL FOR ALL PROJECTS THAT DISTURB GREATER THAN OR EQUAL TO ONE ACRE.
- (K) IF REQUIRED BY LAW, THE OWNER/DEVELOPER SHALL PROVIDE STATEMENT CERTIFYING THAT ALL WETLANDS PERMITS WILL BE OBTAINED PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.
- R-10
15. THESE PLANS AND SPECIFICATIONS ARE BASED ON THE MINIMUM REQUIREMENTS FOR \_\_\_\_\_ ZONING. THIS PLAN CONTAINS \_\_\_\_\_ DWELLING UNITS.
16. ALL ELEVATIONS MUST BE BASED ON THE U.S.G.S. & OR THE N.G.S. MEAN SEA LEVEL DATUM.
17. PRIOR TO ANY APPROVED CLEARING AND GRADING ON A SITE, TREE PROTECTION FENCE SHALL BE ERECTED IN ACCORDANCE WITH FENCE DETAIL ON THE APPROVED LANDSCAPE PLAN, AND BE INSPECTED AND APPROVED BY THE URBAN FORESTER.

INDEX

PAGE

|                                  |      |
|----------------------------------|------|
| COVER SHEET                      | C.01 |
| OVERALL SHEET                    | C.02 |
| EXISTING CONDITIONS              | C.03 |
| GENERALIZED DEVELOPMENT PLAN     | C.04 |
| VEHICLE PATH PLAN                | C.05 |
| LANDSCAPING PLAN                 | C.06 |
| LANDSCAPING NOTES & COMPUTATIONS | C.07 |
| TREE SURVEY                      | C.08 |
| TREE INVENTORY                   | C.09 |
| TREE INVENTORY                   | C.10 |
| TREE INVENTORY                   | C.11 |
| TREE INVENTORY                   | C.12 |
| BMP LAND COVER SUMMARY           | C.13 |
| SWM-BMP NARRATIVE & COMPUTATIONS | C.14 |
| SIGHT DISTANCE PROFILES          | C.15 |
| TEMPORARY TRAILER LOCATION       | C.16 |

VICINITY MAP



LOCATION OF BENCHMARKS

| Point | Northing    | Easting      | Elevation | Description |
|-------|-------------|--------------|-----------|-------------|
| 1     | 7040648.810 | 11801798.241 | 397.86    | GPSM 1      |
| 2     | 7040241.912 | 11801895.240 | 373.64    | GPSM 2      |
| 3     | 7040243.522 | 11802212.678 | 368.56    | TRV 3       |
| 4     | 7040155.279 | 11802395.503 | 362.56    | TRV 4       |
| 5     | 7040128.453 | 11802517.714 | 358.50    | TRV 5       |
| 6     | 7040093.912 | 11802843.788 | 351.84    | TRV 6       |
| 7     | 7040182.725 | 11802869.009 | 352.13    | TRV 7       |
| 8     | 7040388.636 | 11802501.771 | 363.21    | TRV 8       |
| 9     | 7040686.832 | 11802538.239 | 362.03    | TRV 9       |
| 10    | 7040720.880 | 11802332.511 | 366.74    | TRV 10      |
| 11    | 7040653.689 | 11802189.127 | 373.72    | TRV 11      |
| 12    | 7040543.033 | 11802048.907 | 375.48    | TRV 12      |

WAIVER REQUESTS

(DESIGNATE EACH SECTION OF THE ZONING ORDINANCE, PUBLIC FACILITIES MANUAL OR SUBDIVISION ORDINANCE FROM WHICH A WAIVER IS REQUESTED. PLEASE NOTE THAT A LETTER OF JUSTIFICATION FOR EACH WAIVER MUST ACCOMPANY THE INITIAL PLAN SUBMISSION)

FEE = \$200.00 PER REQUEST

WAIVER FROM SECTION: TABLE 2-2 OF VDOT ROAD DESIGN MANUAL = \$200.00

WAIVER FROM SECTION: 78.110.4(e)(3)a OF ZONING ORDINANCE = \$200.00

NUMBER OF REQUESTS: 2 X \$200.00 = \$400.00

DATE FEE COLLECTED (Official Use Only):

EXISTING CONDITION SURVEY NOTES

1. HORIZONTAL DATUM VCS 1983 — NORTH ZONE  
VERTICAL DATUM NAVD 88
2. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED BY RINKER DESIGN ASSOCIATES, P.C.  
DATED MAY 02, 2022 AND CANNOT BE GUARANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.
3. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.  
CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

TOWN PLAN #: SE#23-01

TOWN OF HERNDON, VIRGINIA  
COVER SHEET



|                                                                                                           |                                                                                         |                                                 |                    |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------|--------------------|
| SUBDIVISION OR SITE PLAN NAME                                                                             |                                                                                         | HERNDON ELEMENTARY SCHOOL RENOVATION & ADDITION |                    |
|                                                                                                           |                                                                                         | SPECIAL EXCEPTION                               |                    |
| OWNER, ADDRESS, INCLUDE ZIP CODE AND TELEPHONE NUMBER                                                     | FAIRFAX COUNTY SCHOOL BOARD<br>8115 GATEHOUSE ROAD, SUITE 3500, FALLS CHURCH, VA 22042  |                                                 | 571-423-2227       |
| DEVELOPER, ADDRESS, INCLUDE ZIP CODE AND TELEPHONE NUMBER                                                 | FAIRFAX COUNTY SCHOOL BOARD<br>8115 GATEHOUSE ROAD, SUITE 3500, FALLS CHURCH, VA 22042  |                                                 | 571-423-2227       |
| CERTIFIED ENGINEER, ARCHITECT OR SURVEYOR SUBMITTING PLAN, ADDRESS, INCLUDE ZIP CODE AND TELEPHONE NUMBER | RINKER DESIGN ASSOCIATES, P.C.<br>11100 ENDEAVOR COURT, SUITE 200<br>MANASSAS, VA 20109 |                                                 | 703-368-7373       |
| FAIRFAX COUNTY TAX MAP NUMBER                                                                             | 010-4 ((02)) 0066A                                                                      |                                                 |                    |
| TOTAL AREA                                                                                                | 13.89 AC                                                                                | PRESENT ZONING                                  | R-10               |
| REVISED: JULY 2014                                                                                        |                                                                                         |                                                 | PAGE 1 OF 16 PAGES |

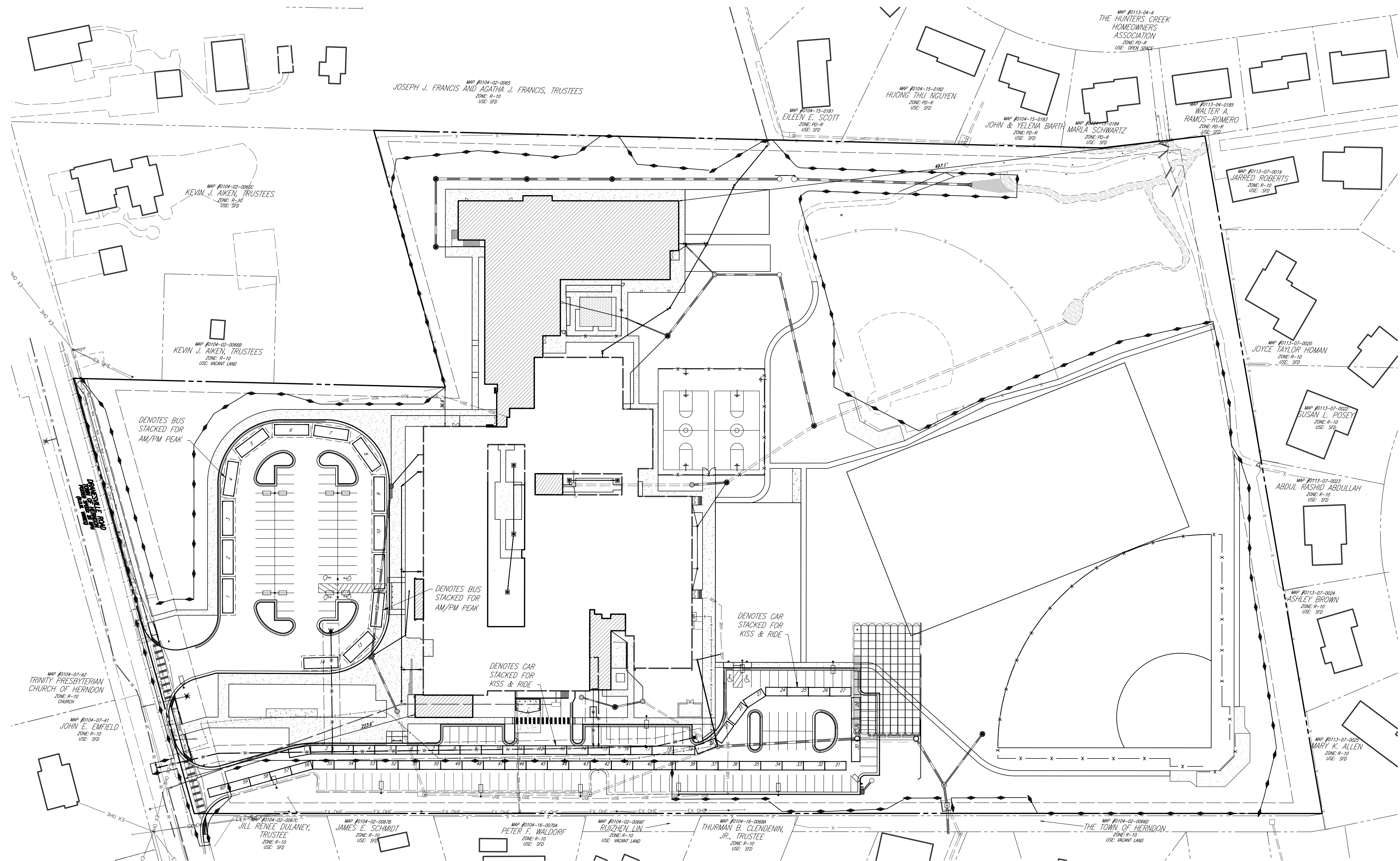


*LEGEND*

| PROPOSED                                                                          | EXISTING                                                                          | DESCRIPTION                  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------|
|  |  | SANITARY MANHOLE             |
|  |  | SANITARY STRUCTURE NUMBER    |
|  |                                                                                   | SANITARY CLEAN OUT NUMBER    |
|  |  | SANITARY CLEANOUT            |
|                                                                                   |  | TELEPHONE MANHOLE            |
|  |  | LIGHT POLE                   |
|  |  | WATER VALVE                  |
|  |  | FIRE HYDRANT                 |
|  |  | WATER METER                  |
|  |  | STREET SIGN                  |
|  |  | BOLLARD                      |
|  |  | STORM SEWER STRUCTURE NUMBER |
|  |  | HANDICAP SPACE               |
|  |  | FLOW ARROW                   |
|  |  | GUY WIRE                     |
|  |  | SPOT ELEVATION               |
|  |  | WATERLINE                    |
|  |  | LIMITS OF DISTURBANCE        |
|  |  | EXISTING PROPERTY LINE       |
|  |  | EXISTING EDGE OF PAVEMENT    |
|  |  | CURB & GUTTER (CG-6)         |
|  |  | STORM SEWER DRAIN            |
|  |  | TREE LINE                    |
|  |  | UTILITY POLE                 |
|  |  | VEHICLES PER DAY COUNT       |
|  |  | TEST PIT REQUIRED            |
|  |  | PROPOSED TREE                |
|  |  | KISS & RIDE STACKING SPOT    |
|  |  | BUS STACKING SPOT            |

## ABBREVIATIONS

|         |                            |
|---------|----------------------------|
| APPROX. | APPROXIMATE                |
| A=      | ARC LENGTH                 |
| B.O.V.  | BLOW OFF VALVE             |
| B.R.L.  | BUILDING RESTRICTION LINE  |
| C       | CENTER LINE                |
| C.O.    | CLEAN OUT                  |
| CONC.   | CONCRETE                   |
| C&G     | CURB AND GUTTER            |
| E.B.    | EDGE BLOCK                 |
| DRN.    | DRAINAGE                   |
| D.I.P.  | DUCTILE IRON PIPE          |
| ESMT.   | EASEMENT                   |
| E.P.    | EDGE OF PAVEMENT           |
| ENT.    | ENTRANCE                   |
| EX.     | EXISTING                   |
| ELEV.   | ELEVATION                  |
| SR      | FACE OF CURB RADIUS        |
| CH.     | FACE HYDRANT               |
| H.H.    | HAND HOLE                  |
| INST.#  | INSTRUMENT NUMBER          |
| INV.    | INVERT                     |
| LAT.    | LATERAL                    |
| L.P.    | LIGHT POLE                 |
| LD.     | LOADING DOCK               |
| LS.     | LOADING SPACE              |
| M.H.    | MAN HOLE                   |
| M.E.    | METRIC/ELECTRICAL/PLUMBING |
| M.L.S.A | MULCHED LANDSCAPE AREA     |
| N/F     | NOW/FORMERLY               |
| O.D.    | OVERHEAD DOOR              |
| PG.     | PAGE                       |
| PMT.    | PAVEMENT                   |
| PVC     | POLYVINYL CHLORIDE         |
| PROP.   | PROPOSED                   |
| RCF     | REINFORCED CONCRETE PIPE   |
| R/W     | RIGHTING WALL              |
| R/W     | RIGHT OF WAY               |
| SAN.    | SANITARY                   |
| SEW.    | SEWER                      |
| SW      | SIDEWALK                   |
| SQ.     | SQUARE FEET                |
| SFD     | SINGLE FAMILY DEVELOPMENT  |
| STM.    | STORM                      |
| T.B.    | TAX MAP                    |
| TEMP.   | TEMPORARY                  |
| T.M.    | TO BE ABANDONED            |
| T.B.R.  | TO BE REMOVED              |
| TP.     | TYPICAL                    |
| V.A.    | VAN ACCESSIBLE             |
| W/L     | WATERLINE                  |
| W/M     | WATERMAIN                  |



GENERAL NOTES

1. ANY PERMANENT STRUCTURES, INCLUDING OUTDOOR RECREATION FACILITIES, ARE SUBJECT TO ARB APPROVAL.
2. EXTERIOR LIGHTING SHALL COMPLY WITH ZONING ORDINANCE SECTION 78-130.9(C) AND LIGHTING GUIDELINES IN THE TOWN OF HERNDON STREETScape MANUAL AT THE TIME OF SITE PLAN APPROVAL.
3. GRADING STEEPER THAN 3:1 WILL BE ACCEPTED ONLY ON THE RECOMMENDATION OF A GEOTECHNICAL ENGINEER. RECOMMENDATIONS MUST BE PROVIDED AT THE TIME OF SITE PLAN AS PART OF THE A GEOTECHNICAL REPORT.
4. THE SWM SYSTEM AND BMP PRACTICES PROPOSED ON THE PLAN WILL MEET ALL STATE AND LOCAL TOWN OF HERNDON REQUIREMENTS.
5. ALL SWM QUALITY AND QUANTITY REQUIREMENTS FOR THE PROJECT WILL BE MET ON SITE INCLUDING THE REQUIREMENT FOR ANY OFFSITE DISTURBED AREA.
6. ALL PROPOSED SWM FACILITIES WILL BE PRIVATELY MAINTAINED.
7. SWM COMPUTATIONS ON THIS GOP ARE FOR INFORMATIONAL PURPOSES ONLY AND THE TOWN'S REVIEW OF THE COMPUTATIONS ARE PRELIMINARY.

SURVEY NOTE

1. RDA FOUND AND REVIEWED THE RECORD PLATS/DESCRIPTIONS FOR BOTH THE SCHOOL AND THE SUBDIVISION AND BEST-FIT PLACED THOSE SHAPES ON THE MONUMENTS FOUND FOR EACH RESPECTIVE PARCEL/GROUP OF PARCELS. VERY RARELY DOES A BOUNDARY FIT PERFECTLY WITH ITS ADJOINING PARCEL. IN ALMOST EVERY CASE, THE SURVEYOR WILL CLEAN UP OVERLAPPING/CONTINUOUS LINES AND HOLD THE SUBJECT PARCEL LINES OF THE SITE SURVEY (IN THIS CASE THE SCHOOL). HOWEVER, THE DIFFERENCE BETWEEN THE SUBDIVISION AND THE SCHOOL WAS SIGNIFICANT ENOUGH AND SUPPORTED BY FIELD RECOVERED MONUMENTS THAT RDA ELECTED TO SHOW BOTH PROPERTY LINES AND THE RECORDING GAP. SHOWING THE GAP IN THE CLEAN DOES NOT MEAN IT EXISTS ANY OTHER. THE DISCREPANCY BETWEEN THE RECORDING GAP AND THE MONUMENTS FOUND IN THE FIELD, NO SPITE PARCEL EXISTS ADJACENT TO HERNDON ELEMENTARY SCHOOL.

PARKING SUMMARY

USE: PUBLIC ELEMENTARY SCHOOL  
 REQUIREMENT: 1 SPACE PER 15 STUDENTS  
 MAXIMUM STUDENT CAPACITY: 1,050 STUDENTS  
 PARKING REQUIRED: 1,050 STUDENTS / 15  
                               = 70 SPACES  
 PARKING PROVIDED: 170 (164 REGULAR)  
 ACCESSIBLE PARKING REQUIRED: 6 SPACES (1-VA)  
 ACCESSIBLE PARKING PROVIDED: 6 SPACES (6-VA)  
 BUS PARKING PROVIDED: 0 SPACES

## R-10 DIMENSIONAL STANDARDS

|                                            | <u>REQUIRED</u>                                       | <u>PROVIDED</u> |
|--------------------------------------------|-------------------------------------------------------|-----------------|
| MAXIMUM GROSS DENSITY:                     | N/A                                                   | N/A             |
| MINIMUM LOT AREA:                          | 15,000 SF                                             | 13.89 AC        |
| LOT WIDTH:                                 | 90'                                                   | >90'            |
| MINIMUM SETBACK:                           | 35' FROM ROW or<br>60' FROM C/L or<br>BUILDING HEIGHT | 223.60'         |
| MINIMUM SIDE YARD:                         | 10' or BUILDING HEIGHT                                | 36.60'          |
| REAR YARD:                                 | 25' or BUILDING HEIGHT                                | 49.10'          |
| MAXIMUM HEIGHT:                            | 45'                                                   | 30'             |
| MINIMUM OPEN SPACE:                        | 30%                                                   | 62%             |
| MAXIMUM LOT COVERAGE:                      | 25%                                                   | 13%             |
| MAXIMUM IMPERVIOUS AREA:                   | 50%                                                   | 38%             |
| MAXIMUM PAVED PARKING:                     | N/A                                                   |                 |
| DISTANCE BETWEEN<br>PAVED SURFACE AND P/L: | N/A                                                   | N/A             |

EXISTING INFORMATION

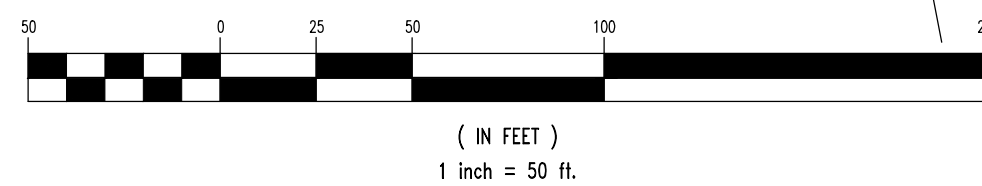
USE: ELEMENTARY SCHOOL  
TOTAL EXISTING GROSS FLOOR AREA: 100,429 SF  
EXISTING GFA (BUILDING): 85,165 SF  
EXISTING GFA (TRAILERS): 15,264 SF  
EXISTING PARKING: 103 (98 REGULAR) SPACES  
EXISTING ACCESSIBLE PARKING: 5 SPACES

### SITE SUMMARY

|                              |                 |
|------------------------------|-----------------|
| LOT AREA:                    | 13.89 AC        |
| USE: PUBLIC SCHOOLS          | 604,984 SF      |
| DISTURBED AREA:              | 100%            |
|                              | 10.85 AC        |
| EXISTING BUILDING FOOTPRINT: | 63,339 SF       |
| EXISTING TRAILER FOOTPRINT:  | 15,264 SF       |
| AREA TO BE REMOVED:          | 15,264+4,664 SF |
| PROPOSED BUILDING FOOTPRINT: | 20,165 SF       |
| TOTAL FOOTPRINT AREA:        | 78,640 SF       |
| EXISTING GROSS FLOOR AREA:   | 85,165 SF       |
| EXISTING TRAILER GFA:        | 85,264 SF       |
| AREA TO BE REMOVED:          | 7,080+15,264 SF |
| PROPOSED GROSS FLOOR AREA:   | 51,119 SF       |
| TOTAL GROSS FLOOR AREA:      | 129,204 SF      |

|                  |                       |
|------------------|-----------------------|
| FLOOR AREA RATIO | 129,204/604,984=0.214 |
| NUMBER OF FLOORS | 2                     |
| BUILDING HEIGHT: | VARIES-(MAX 30')      |
| LOT COVERAGE:    | 78,840/604,984=0.130  |
| IMPERVIOUS AREA: | 228,562 SF (37.78%)   |
| OPEN SPACE AREA: | 376,422 SF (62.22%)   |

GRAPHIC SCALE



WORTH 1983

OVERALL SHEET

HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITIONDRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

|  |  |
|--|--|
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PLAN DATE:  
OCTOBER 18, 2023

DESIGN BY: AAG/TAP/SAW

ARCHITECT: Cooper Carry

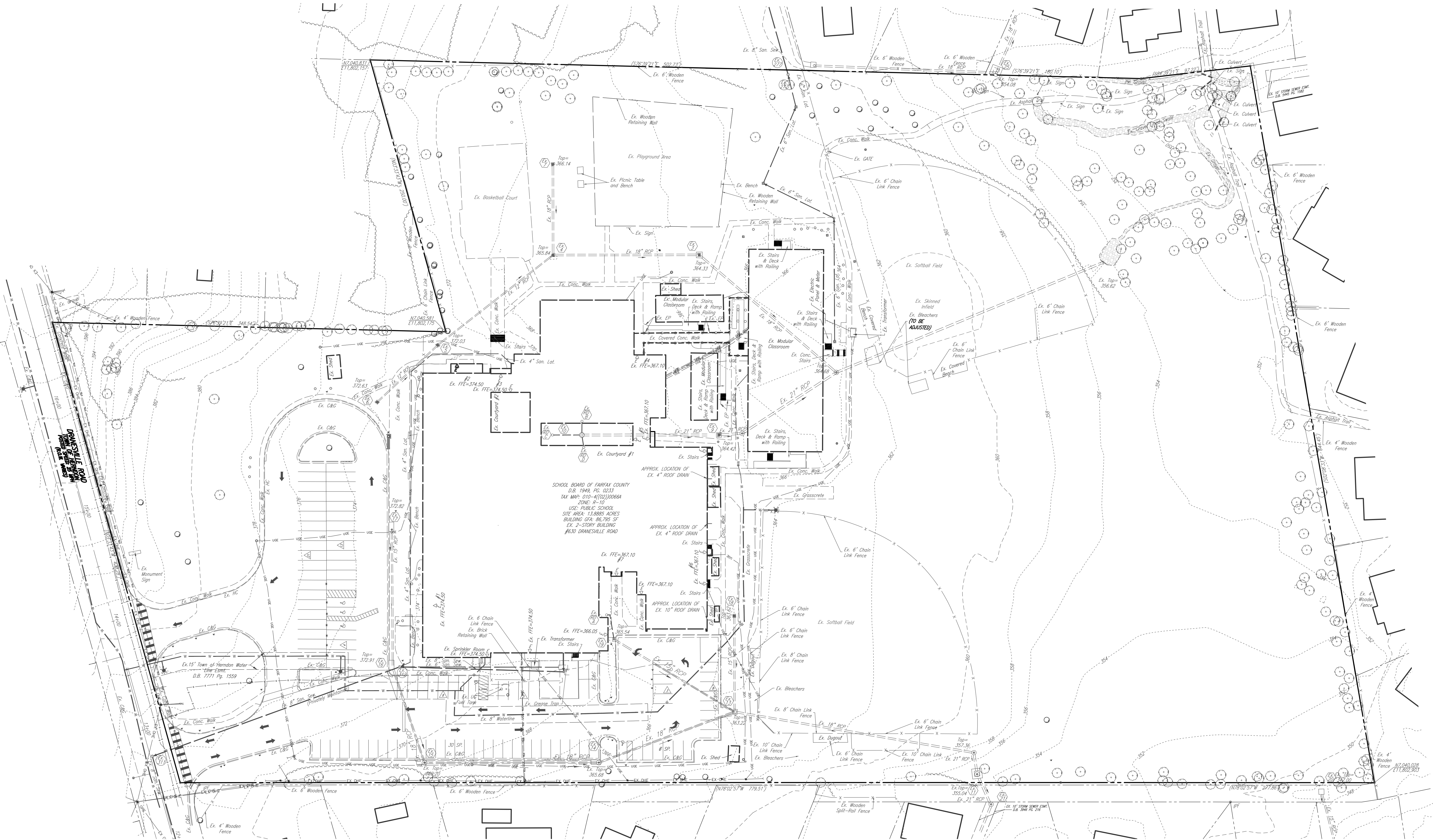
JURISDICTIONAL PLAN NO.  
SE#23-01

RDA PLAN #: 22029

SHEET NUMBER: C.02

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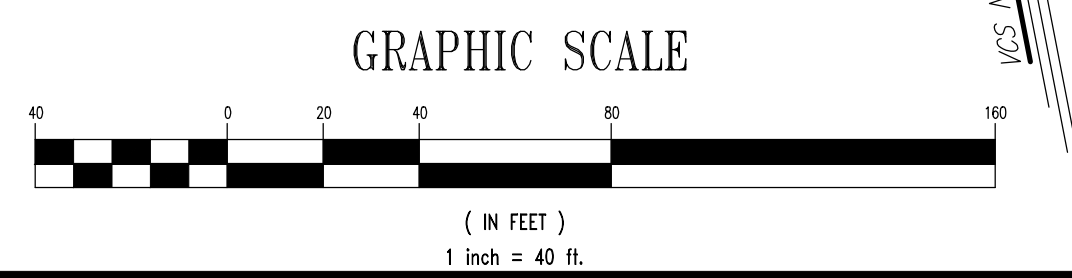
**Rinker Design Associates, P.C.**  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 [www.rdacivil.com](http://www.rdacivil.com)  
Engineering \* Surveying \* Transportation \* Environmental Services

**EXISTING CONDITIONS**  
**HERNDON ELEMENTARY SCHOOL**  
**RENOVATION & ADDITION**  
DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

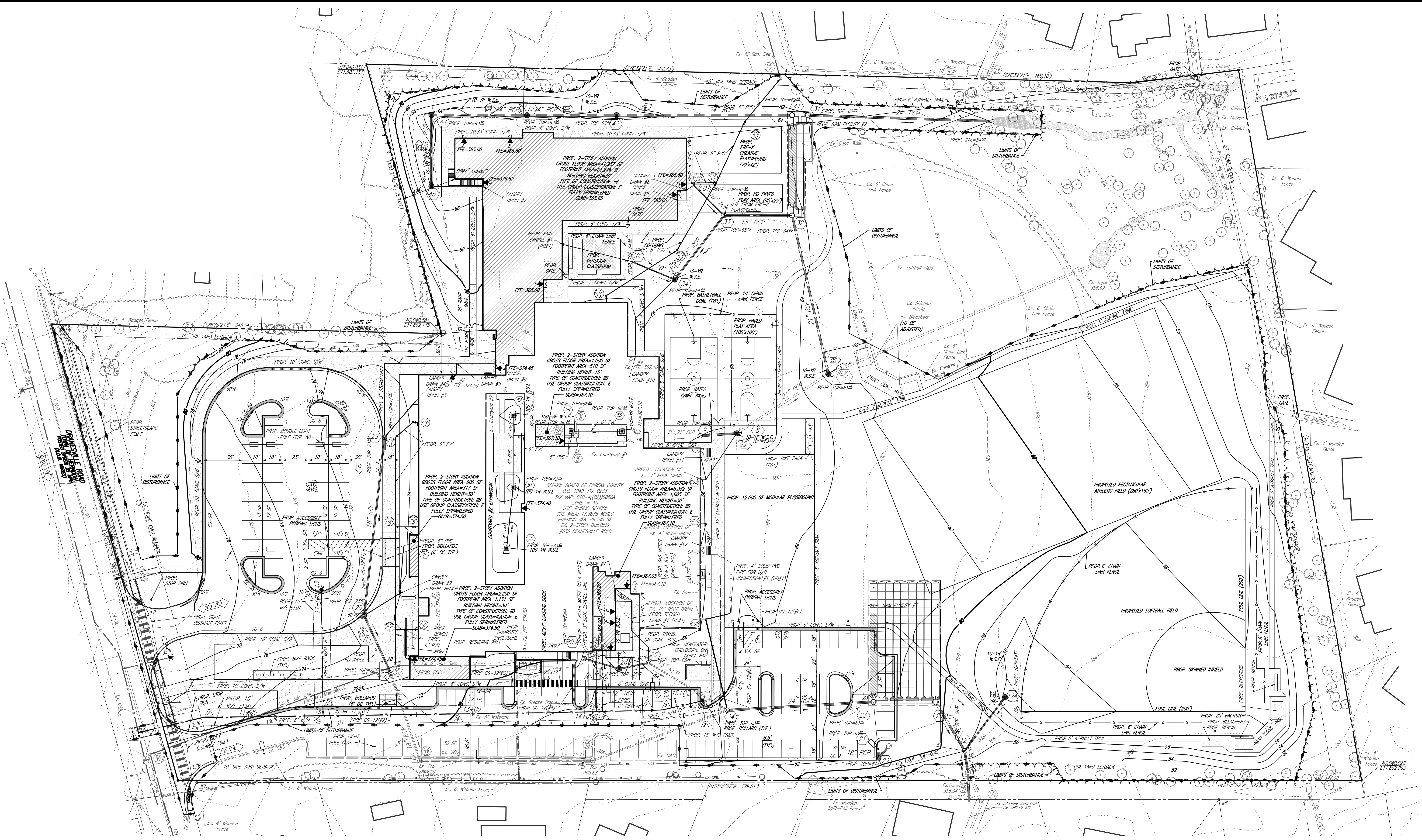
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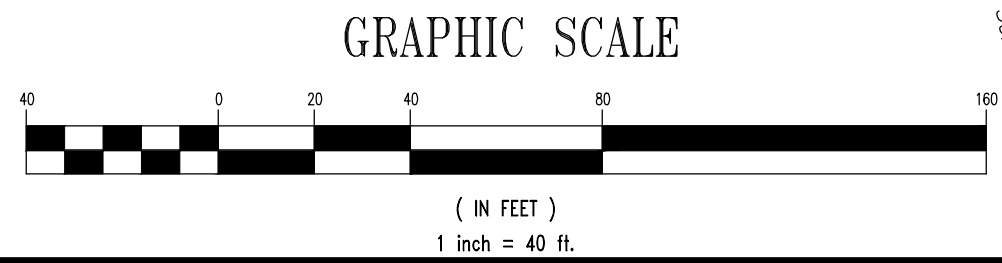
|                         |                  |
|-------------------------|------------------|
| PLAN DATE:              | OCTOBER 18, 2023 |
| DESIGN BY:              | AAG/TAP/SAW      |
| CHECKED BY:             | JDC              |
| ARCHITECT:              | Cooper Carry     |
| JURISDICTIONAL PLAN NO. | SE#23-01         |
| RDA PLAN #:             | 22029            |
| SHEET NUMBER:           | C.03             |







NOTES  
1. ALL GRADING INFORMATION WILL BE REVIEWED IN ACCORDANCE WITH APPLICABLE REGULATIONS AT THE TIME OF THE SITE PLAN.



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GENERALIZED DEVELOPMENT PLAN

**HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION**

DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

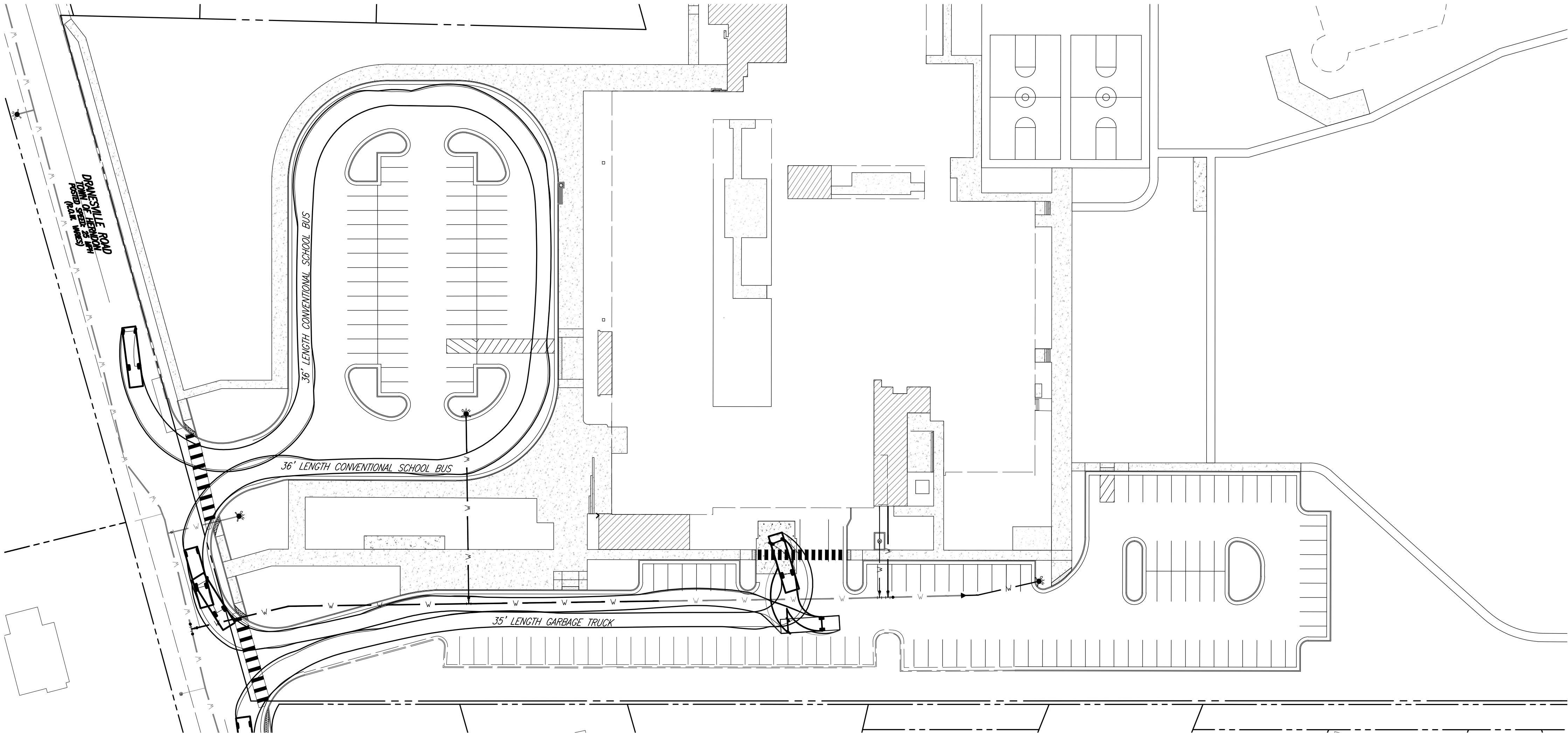
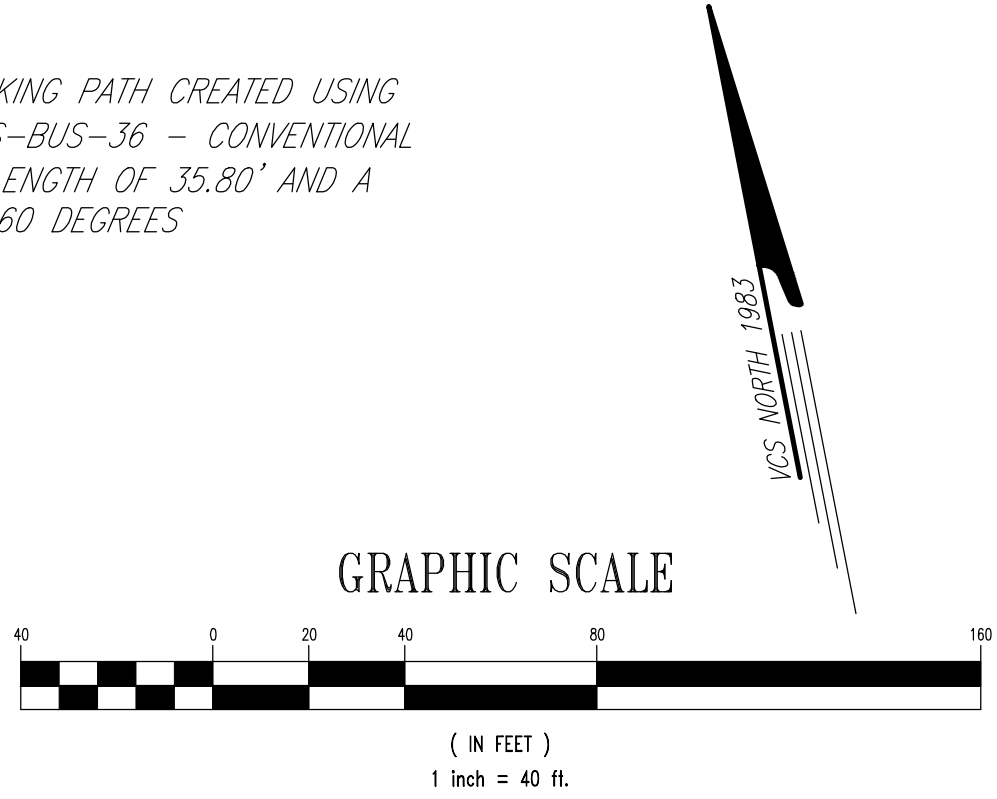
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PLAN DATE: OCTOBER 18, 2023  
DESIGN BY: AAG/TAP/SAW  
CHECKED BY: JDC  
ARCHITECT: Cooper Carry  
JURISDICTIONAL PLAN NO. SE#23-01  
RDA PLAN #: 22029  
SHEET NUMBER: C.04



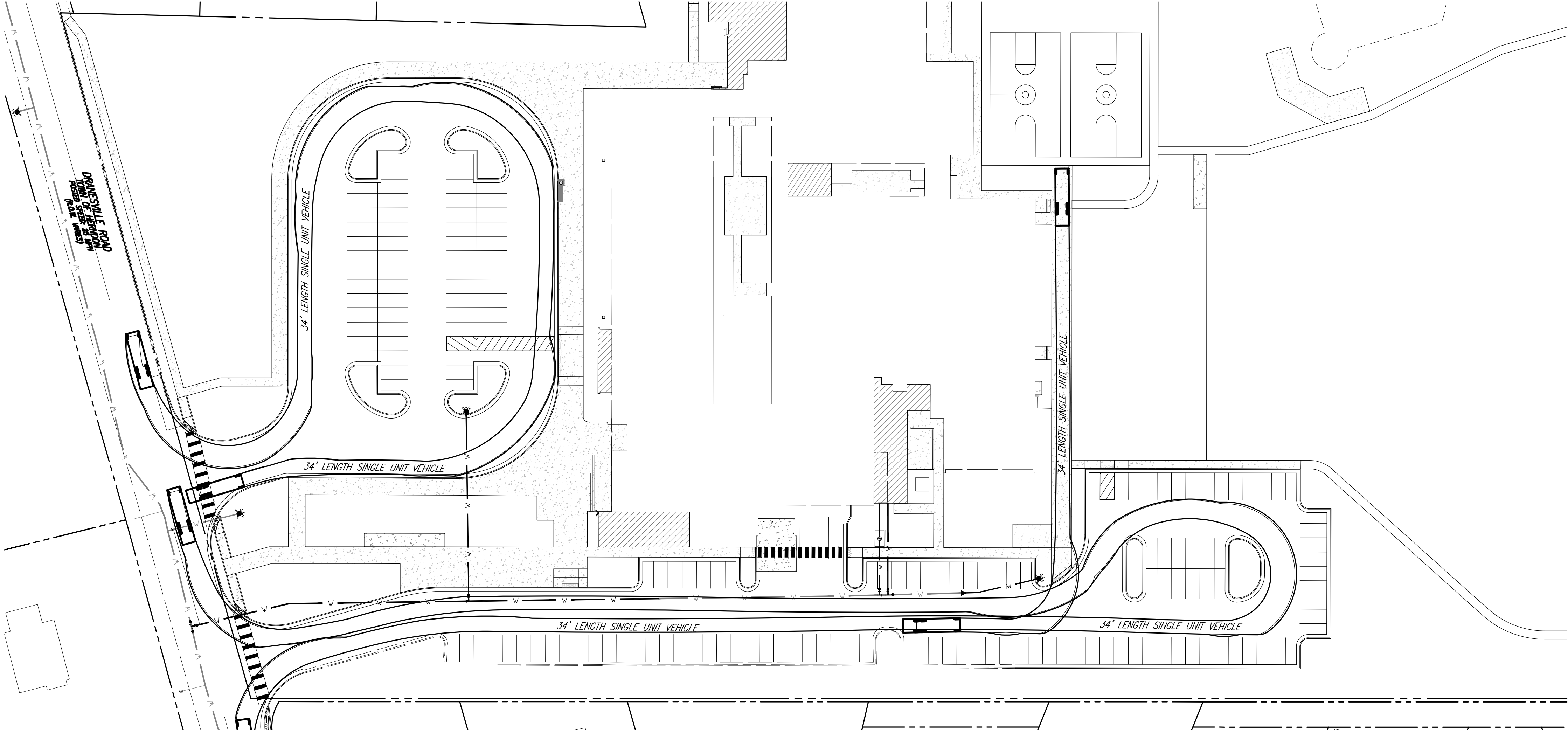
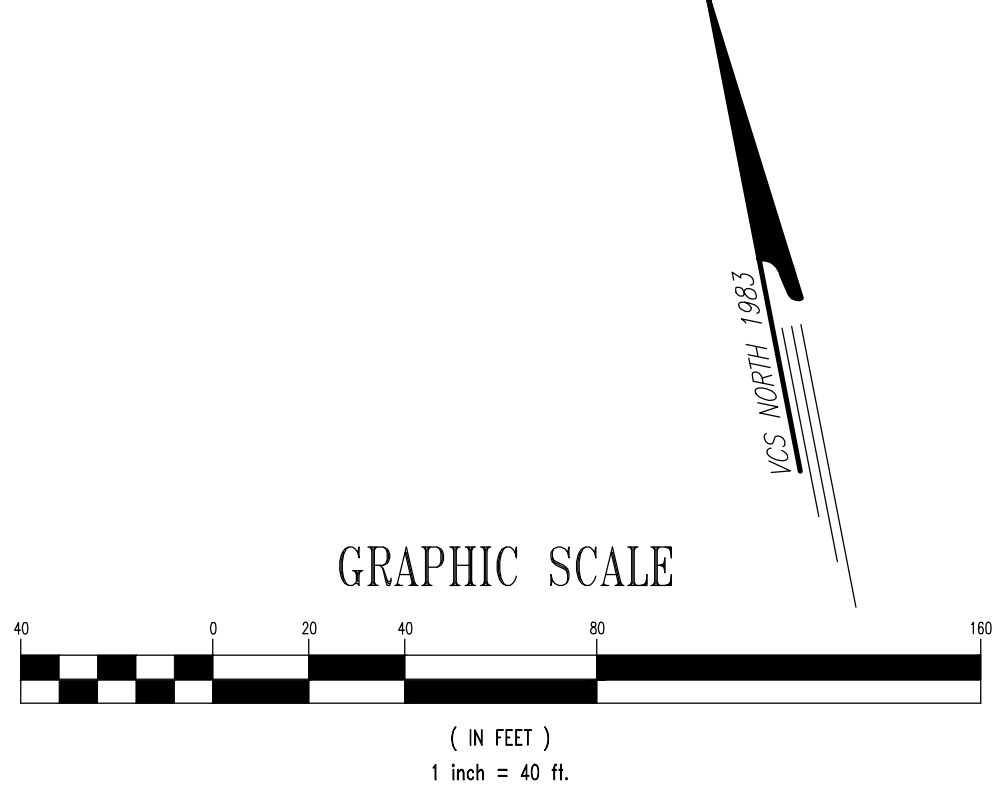
SCHOOL BUS & GARBAGE TRUCK  
VEHICLE TRACKING PATHS

NOTES:  
1. GARBAGE TRUCK VEHICLE TRACKING PATH CREATED USING NCHRP 659 (2010) GROUND CLEARANCE VEHICLES, REAR-LOAD GARBAGE TRUCK WITH A LENGTH OF 35' AND A CURB TO CURB RADIUS OF 29.30' (DIMENSIONS=35'x8.375').  
2. SCHOOL BUS VEHICLE TRACKING PATH CREATED USING AASHTO 2011 (US CUSTOMARY), S-BUS-36 - CONVENTIONAL SCHOOL BUS (65 PASS) WITH A LENGTH OF 35.80' AND A MAXIMUM STEERING ANGLE OF 37.60 DEGREES (DIMENSIONS=35.8'x8').



FIRE TRUCK VEHICLE  
TRACKING PATHS

NOTES:  
1. FIRE TRUCK VEHICLE TRACKING PATHS CREATED USING A MODIFIED SU-40 VEHICLE WITH A LENGTH OF 34' AND A MAXIMUM STEERING ANGLE OF 35 DEGREES (DIMENSIONS=34'x8').



**Rinker Design Associates, P.C.**  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 [www.rdacivil.com](http://www.rdacivil.com)  
Engineering \* Surveying \* Transportation \* Environmental Services

VEHICLE PATH PLAN

**HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION**

DRAVESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

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PLAN DATE:  
OCTOBER 18, 2023

DESIGN BY: AAC/TAP/SAW

CHECKED BY: JDC

ARCHITECT: Cooper Carry

JURISDICTIONAL PLAN NO.  
SE#23-01

RDA PLAN #: 22029

SHEET NUMBER: C.05



Legend

- DENOTES CANOPY TREE
- DENOTES TREE FOR VEHICULAR USE AREA
- DENOTES UNDERSTORY TREE
- DENOTES EVERGREEN TREE
- DENOTES SHRUB
- DENOTES EX. TREE LINE
- DENOTES PROP. TREE LINE
- DENOTES EXISTING TREE TO REMAIN
- DENOTES CRITICAL ROOT ZONE OF EXISTING TREES TO REMAIN

NOTE: PERIMETER BUFFER STRIP A EXISTING CANOPY FULFILLS THE CANOPY REQUIREMENT.

NOTE: THE REQUIRED FENCE TO SATISFY THE PERIMETER BUFFER STRIP A REQUIREMENT ALONG THE NORTHERN PROPERTY LINE IS SATISFIED BY EXISTING 6" CHAIN LINK FENCE TO REMAIN.

NOTE: SEE SHEET C.07 FOR PLANTING SCHEDULE LEGEND AND LANDSCAPING CALCULATIONS.

NOTE: SITE LANDSCAPING REQUIREMENT IS EXCLUSIVE FROM VEHICULAR USE AREA AND BUFFER STRIPS.

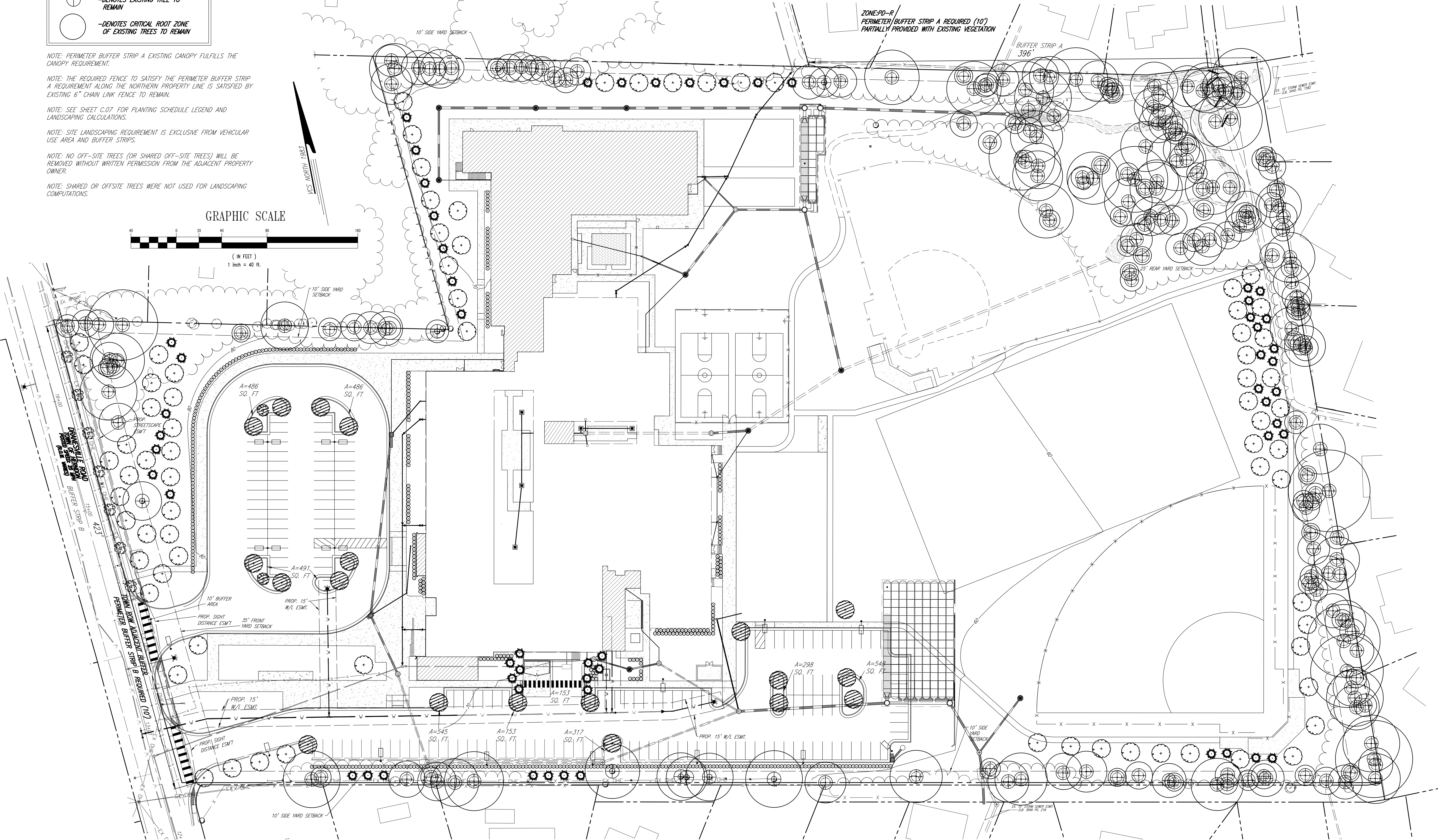
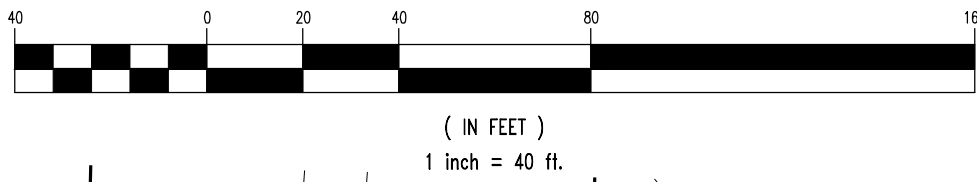
NOTE: NO OFF-SITE TREES (OR SHARED OFF-SITE TREES) WILL BE REMOVED WITHOUT WRITTEN PERMISSION FROM THE ADJACENT PROPERTY OWNER.

NOTE: SHARED OR OFFSITE TREES WERE NOT USED FOR LANDSCAPING COMPUTATIONS.

SCREENING NOTES

1. DUMPSTER & GENERATOR HAVE THEIR OWN ENCLOSURES, BUT EVERGREEN TREES HAVE BEEN PROPOSED TO HELP AUGMENT THE SCREENING OF THESE FACILITIES FROM THE ROW AND SOUTHERN PROPERTY LINE. THE TRANSFORMER WILL BE SCREENED FROM THE ROW BY THE BUILDING AND THESE SAME EVERGREEN TREES SHALL SCREEN THE TRANSFORMER FROM THE PROPERTY LINE.

GRAPHIC SCALE



**Rinker Design Associates, P.C.**  
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LANDSCAPING PLAN

**HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION**  
DRAVESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

|                         |                  |
|-------------------------|------------------|
| PLAN DATE:              | OCTOBER 18, 2023 |
| DESIGN BY:              | AAC/TAP/SAW      |
| CHECKED BY:             | JDC              |
| ARCHITECT:              | Cooper Carry     |
| JURISDICTIONAL PLAN NO. | SE#23-01         |
| RDA PLAN #:             | 22029            |
| SHEET NUMBER:           | C.06             |



SUBSOIL COMPACTED AREAS USING SUSAN DAY'S PROCEDURE: APPLY 6"-8" OF COMPOST. SUBSOILING SHOULD BE PERFORMED WHEN SOIL IS NEITHER TOO WET NOR DRY. USE A BACKHOE REAR BUCKET (OR SIMILAR EQUIPMENT WITH A TINED BUCKET) TO BREAK UP THE COMPACTED SOIL AND INCORPORATE THE COMPOST. WORK BACKWARDS FROM EXCAVATED SOILS. SO THAT TREATED SOIL IS NOT TRACKED BY THE EQUIPMENT. INSERT THE BUCKET THROUGH THE COMPOST LAYER AND INTO THE SUBSOIL TO A DEPTH OF 24" AND RAISE A BUCKET OF SOIL A FEW FEET ABOVE THE SOIL SURFACE. TIP THE BUCKET AND ALLOW SOIL TO FALL. REPEAT THIS PROCEDURE UNTIL NO CLUMPS OF COMPACTED SOIL LARGER THAN 1" IN DIAMETER REMAIN. THE TINES OF THE BUCKET CAN BE USED TO BREAK APART LARGER CLUMPS; IF NECESSARY, CONTINUE TO BREAK UP CLUMPS UNTIL AT LEAST 50% OF THE SOIL IS IN CLUMPS 6" OR SMALLER. THE SUBSOILING IS NOT INTENDED TO HOMOGENIZE THE COMPOST AND SOIL, BUT RATHER LOOSEN THE SOIL TO A 24" DEPTH AND CREATE VEINS OF COMPOST DOWN TO THAT DEPTH AS WELL. THIS PROCEDURE SHALL NOT BE UTILIZED WITHIN THE CRITICAL ROOT ZONE OF ANY TREE TO BE PRESERVED. SOIL SHALL BE LOOSENED BY HAND IN THOSE LOCATIONS.





**TREE CONSERVATION PLAN LEGEND:**

- LIMITS OF DISTURBANCE
- EX. TREE/ TREE TO BE REMOVED
- XX TREE PROTECTION FENCE
- RP ROOT PRUNING
- EX. TREE CRITICAL ROOT ZONE

NOTE: TREE PROTECTION WILL BE COORDINATED WITH THE TOWN ARBORIST AT THE TIME OF SITE PLAN.

**CERTIFIED ARBORIST**  
ISA  
Brian Howard  
ISA Certified Arborist - MA 4677A  
ISA Certified Tree Risk Assessor - CTRA 916  
B.H.

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**TREE SURVEY**  
**HERNDON ELEMENTARY SCHOOL RENOVATION & ADDITION**  
DRAVESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

**REVISIONS:**

| NO. | DESCRIPTION | DATE |
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PLAN DATE: OCTOBER 18, 2023  
DESIGN BY: AAC/TAP/SAW  
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ARCHITECT: Cooper Carry  
JURISDICTIONAL PLAN NO. SE#23-01  
RDA PLAN #: 22029  
SHEET NUMBER: C.08



| TREE INVENTORY - Herndon Elementary School |        |                    |                      |                                |                                     |           |                 |                  |               |             |                  |                       |                     |          |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|--------------------------------------------|--------|--------------------|----------------------|--------------------------------|-------------------------------------|-----------|-----------------|------------------|---------------|-------------|------------------|-----------------------|---------------------|----------|-------------------------|---------------|----------------|--------------------------|--------------------------------|----------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TREE TO BE COUNTED TOWARD CREDIT           | Tree # | Species            | Size                 | CRZ                            | SRZ                                 | Condition | Canopy Position | Crown Radius     | Crown Density |             |                  |                       |                     | Status   | Activities              | Root Problems | Trunk Problems | Scaffold Branch Problems | Small Branch and Twig Problems | CRZ impacts (critical root zone) | Notes |                                                                                                                                                                                    |
|                                            |        |                    | dbh                  | Critical Root Zone (radius ft) | Structural Rooting Zone (radius ft) | %         |                 | Avg. Radius (ft) | %             | * Dead Tree | * Poor Condition | * Assessment obscured | * Off Site/Co-Owned |          | * Tree Protection Fence | * Root Prune  | * Vine removal | * Monitor/Risk Assess    | * Hand Removal                 |                                  |       |                                                                                                                                                                                    |
|                                            | 1725   | Norway spruce      | 15                   | 15                             | 5.0                                 | 80        | Isolated        | 10               | 90            |             |                  |                       |                     | REMOVE   |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| ✓                                          | 1726   | white mulberry     | 16, 14, 13           | 25                             | 8.3                                 | 55        | Codominant      | 10               | 30            |             | X                |                       |                     | PRESERVE |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 1                                          | 1727   | black cherry       | 9                    | 9                              | 3.0                                 | 65        | Codominant      | 10               | 80            |             |                  |                       |                     | PRESERVE |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | * 1728 | white mulberry     | 16                   |                                |                                     | 0         |                 |                  |               | X           |                  |                       | *X                  | REMOVE   |                         |               |                | *X                       |                                |                                  | N/A   | Dead tree. Possible elevated risk. *Located along shared boundary, ownership not determined. Do not remove off site trees without written permission. Arborist recommends removal. |
| ✓                                          | 1729   | white mulberry     | 12, 8, 8             | 16                             | 5.3                                 | 50        | Codominant      | 5                | 10            |             | X                |                       |                     | PRESERVE |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| ✓                                          | 1730   | black cherry       | 9                    | 9                              | 3.0                                 | 55        | Intermediate    | 5                | 60            |             | X                |                       |                     | PRESERVE |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| ✓                                          | 1731   | hickory species    | 17                   | 17                             | 5.6                                 | 55        | Intermediate    | 15               | 40            |             | X                |                       |                     | PRESERVE |                         | X             | X              |                          |                                |                                  |       | Decline. Large limb overhands off site properties. Possible elevated risk. Monitoring/risk assessment is recommended.                                                              |
| ✓                                          | 1732   | white mulberry     | 16, 14               | 21                             | 6.9                                 | 55        | Intermediate    | 10               | 50            |             | X                |                       | *X                  | PRESERVE |                         | X             |                |                          |                                |                                  |       | *Located along shared boundary, ownership not determined.                                                                                                                          |
| ✓                                          | 1733   | white mulberry     | 20, 16               | 26                             | 8.6                                 | 50        | Intermediate    | 15               | 60            |             | X                |                       |                     | PRESERVE |                         | X             | X              |                          |                                |                                  |       | Monitoring/risk assessment is recommended.                                                                                                                                         |
|                                            | 1734   | black cherry       | 28                   | 28                             | 9.2                                 | 40        | Intermediate    | 15               | 60            |             | X                |                       |                     | REMOVE   |                         |               |                | X                        |                                |                                  |       | Decline. Significant scaffold branch decay and trunk decay overhands off site properties. Possible elevated risk. Arborist recommends removal.                                     |
|                                            | 1735   | white mulberry     | 16                   | 16                             | 5.3                                 | 65        | Codominant      | 15               | 60            |             |                  | X                     |                     | PRESERVE |                         | X             |                |                          |                                |                                  |       | Off site tree.                                                                                                                                                                     |
| 2                                          | 1736   | pin oak            | 24                   | 24                             | 7.9                                 | 65        | Codominant      | 20               | 40            |             |                  |                       |                     | PRESERVE |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 3                                          | 1737   | eastern white pine | 21                   | 21                             | 6.9                                 | 75        | Codominant      | 20               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 4                                          | 1738   | eastern white pine | 18                   | 18                             | 5.9                                 | 75        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 5                                          | 1739   | eastern white pine | 17, 12               | 21                             | 6.9                                 | 75        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 6                                          | 1740   | black walnut       | 21, 14               | 25                             | 8.3                                 | 80        | Isolated        | 25               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 7                                          | 1741   | red maple          | 18                   | 18                             | 5.9                                 | 75        | Intermediate    | 20               | 70            |             |                  |                       | *X                  | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 8                                          | 1742   | red maple          | 12, 11, 11, 10, 6, 4 | 23                             | 7.6                                 | 75        | Codominant      | 25               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
| 9                                          | 1743   | arborvitae         | 9                    | 9                              | 3.0                                 | 80        | Intermediate    | 15               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 10                                         | 1744   | red maple          | 16, 8                | 18                             | 5.9                                 | 75        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 11                                         | 1745   | red maple          | 16, 14, 10           | 23                             | 7.6                                 | 75        | Codominant      | 25               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 12                                         | 1746   | white mulberry     | 11, 11               | 16                             | 5.3                                 | 65        | Codominant      | 10               | 50            |             |                  |                       |                     | PRESERVE | X                       | X             | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1747   | common persimmon   | 15, 6                | 16                             | 5.3                                 | 85        | Isolated        | 20               | 80            |             |                  |                       |                     | REMOVE   |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 13                                         | 1748   | red maple          | 9, 8, 8, 8, 7        | 18                             | 5.9                                 | 70        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 14                                         | 1749   | Leyland cypress    | 8                    | 8                              | 2.6                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 15                                         | 1750   | eastern red cedar  | 12                   | 12                             | 4.0                                 | 80        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1751   | black walnut       | 11                   | 11                             | 3.6                                 | 80        | Codominant      | 15               | 70            |             |                  |                       |                     | REMOVE   |                         |               |                | X                        |                                |                                  |       |                                                                                                                                                                                    |
| 16                                         | 1752   | eastern red cedar  | 13, 8                | 15                             | 5.0                                 | 65        | Codominant      | 10               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 17                                         | 1753   | hackberry          | 8                    | 8                              | 2.6                                 | 75        | Suppressed      | 5                | 40            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | * 1754 | black cherry       | 13                   |                                |                                     | 0         |                 |                  |               | X           |                  |                       | *X                  | REMOVE   |                         |               |                | *X                       |                                |                                  | N/A   | Dead tree. Possible elevated risk. *Located along shared boundary, ownership not determined. Do not remove off site trees without written permission. Arborist recommends removal. |
| 18                                         | 1755   | pin oak            | 23                   | 23                             | 7.6                                 | 75        | Codominant      | 20               | 60            |             |                  |                       | *X                  | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 19                                         | 1756   | white mulberry     | 9                    | 9                              | 3.0                                 | 65        | Codominant      | 10               | 30            |             |                  |                       | *X                  | PRESERVE |                         | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 20                                         | 1757   | white mulberry     | 11                   | 11                             | 3.6                                 | 65        | Codominant      | 15               | 30            |             |                  |                       |                     | PRESERVE | X                       | X             | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
| 21                                         | 1758   | black cherry       | 9                    | 9                              | 3.0                                 | 70        | Codominant      | 10               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 22                                         | 1759   | black cherry       | 11                   | 11                             | 3.6                                 | 70        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
| 23                                         | 1760   | eastern red cedar  | 16                   | 16                             | 5.3                                 | 70        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1761   | pin oak            | 25                   | 25                             | 8.3                                 | 75        | Codominant      | 30               | 80            |             |                  |                       |                     | REMOVE   |                         |               |                | X                        |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1762   | red maple          | 12                   | 12                             | 4.0                                 | 70        | Codominant      | 20               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1763   | eastern red cedar  | 10                   | 10                             | 3.3                                 | 65        | Codominant      | 10               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 24                                         | 1764   | yellow buckeye     | 9                    | 9                              | 3.0                                 | 70        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 25                                         | 1765   | sassafras          | 12                   | 12                             | 4.0                                 | 75        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 26                                         | 1766   | black walnut       | 15                   | 15                             | 5.0                                 | 80        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1767   | blackgum           | 10                   | 10                             | 3.3                                 | 70        | Codominant      | 10               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 27                                         | 1768   | sweet cherry       | 8                    | 8                              | 2.6                                 | 75        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 28                                         | 1769   | sweet cherry       | 20, 9                | 22                             | 7.3                                 | 70        | Codominant      | 20               | 50            |             |                  |                       |                     | PRESERVE | X                       |               | X              |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1770   | black cherry       | 25                   | 25                             | 8.3                                 | 55        | Codominant      | 20               | 40            |             |                  |                       |                     | REMOVE   |                         |               |                | X                        |                                |                                  |       |                                                                                                                                                                                    |
| 29                                         | 1771   | southern red oak   | 15                   | 15                             | 5.0                                 | 80        | Codominant      | 20               | 50            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
|                                            | 1772   | oak species        | 12                   |                                |                                     | 0         |                 |                  |               | X           |                  |                       |                     | REMOVE   |                         |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 30                                         | 1773   | black oak          | 34                   | 34                             | 11.2                                | 80        | Codominant      | 40               | 80            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 31                                         | 1774   | American elm       | 25                   | 25                             | 8.3                                 | 80        | Codominant      | 40               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 32                                         | 1775   | scarlet oak        | 10                   | 10                             | 3.3                                 | 70        | Intermediate    | 10               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 33                                         | 1776   | red maple          | 20                   | 20                             | 6.6                                 | 75        | Codominant      | 20               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 34                                         | 1777   | black oak          | 25                   | 25                             | 8.3                                 | 80        | Codominant      | 25               | 70            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 35                                         | 1778   | black cherry       | 16                   | 16                             | 5.3                                 | 70        | Codominant      | 15               | 50            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 36                                         | 1779   | sassafras          | 9                    | 9                              | 3.0                                 | 75        | Intermediate    | 10               | 50            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 37                                         | 1780   | scarlet oak        | 32                   | 32                             | 10.6                                | 80        | Codominant      | 30               | 80            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 38                                         | 1781   | blackgum           | 15                   | 15                             | 5.0                                 | 75        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 39                                         | 1782   | pin oak            | 32                   | 32                             | 10.6                                | 80        | Codominant      | 35               | 80            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 40                                         | 1783   | common persimmon   | 11                   | 11                             | 3.6                                 | 65        | Codominant      | 15               | 30            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 41                                         | 1784   | black locust       | 18                   | 18                             | 5.9                                 | 70        | Codominant      | 20               | 30            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 42                                         | 1785   | black locust       | 9                    | 9                              | 3.0                                 | 60        | Suppressed      | 5                | 20            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 43                                         | 1786   | pin oak            | 15                   | 15                             | 5.0                                 | 75        | Codominant      | 20               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 44                                         | 1787   | sassafras          | 10                   | 10                             | 3.3                                 | 75        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 45                                         | 1788   | sassafras          | 9                    | 9                              | 3.0                                 | 75        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 46                                         | 1789   | sassafras          | 10                   | 10                             | 3.3                                 | 75        | Codominant      | 10               | 50            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 47                                         | 1790   | pin oak            | 15                   | 15                             | 5.0                                 | 75        | Codominant      | 20               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 48                                         | 1791   | eastern red cedar  | 10, 8, 6             | 14                             | 4.6                                 | 70        | Codominant      | 10               | 70            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 49                                         | 1792   | eastern red cedar  | 20                   | 20                             | 6.6                                 | 80        | Codominant      | 20               | 60            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 50                                         | 1793   | white mulberry     | 14                   | 14                             | 4.6                                 | 65        | Codominant      | 15               | 50            |             |                  |                       |                     | PRESERVE | X                       | X             |                |                          |                                |                                  |       |                                                                                                                                                                                    |
| 51                                         | 1794   | sassafras          | 10                   | 10                             | 3.3                                 | 75        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                       |               |                |                          |                                |                                  |       |                                                                                                                                                                                    |

\* NOTE: THIS TREE CANNOT BE REMOVED WITHOUT A LETTER OF PERMISSION FROM THE ADJACENT OWNER.

✓ NOTE: THIS TREE IS PROPOSED TO REMAIN, HOWEVER, DUE TO ITS POOR CONDITION, IT WILL NOT COUNT TOWARDS THE SITE LANDSCAPING REQUIREMENTS.



Brian Howard  
ISA Certified Arborist -  
MA 4677A  
ISA Certified Tree Risk  
Assessor - CTRA 916

B.H.



**Rinker Design Associates, P.C.**  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 [www.rdacivil.com](http://www.rdacivil.com)  
Engineering \* Surveying \* Transportation \* Environmental Services

TREE INVENTORY

HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION

DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

PLAN DATE:  
OCTOBER 18, 2023

DESIGN BY: AAC/TAP/SAW

CHECKED BY: JDC

ARCHITECT: Cooper Carry

JURISDICTIONAL PLAN NO.  
SE#23-01

RDA PLAN #: 22029

SHEET NUMBER: C.09



| TREE TO BE COUNTED TOWARD CREDIT | TREE INVENTORY - Herndon Elementary School |                   |                |                                |                                     |           |                 |                  |               |             |                  |                      |                     |          |            |   |   |   |               |                |                                      |                                                       |                                  |           |          |                                                                                                                 |             |
|----------------------------------|--------------------------------------------|-------------------|----------------|--------------------------------|-------------------------------------|-----------|-----------------|------------------|---------------|-------------|------------------|----------------------|---------------------|----------|------------|---|---|---|---------------|----------------|--------------------------------------|-------------------------------------------------------|----------------------------------|-----------|----------|-----------------------------------------------------------------------------------------------------------------|-------------|
|                                  | Tree #                                     | Species           | Size           | CRZ                            | SRZ                                 | Condition | Canopy Position | Crown Radius     | Crown Density |             |                  |                      |                     | Status   | Activities |   |   |   | Root Problems | Trunk Problems | Scaffold Branch Problems             | Small Branch and Twig Problems                        | CRZ impacts (critical root zone) |           | Notes    |                                                                                                                 |             |
|                                  |                                            |                   |                |                                |                                     |           |                 |                  |               |             |                  |                      |                     |          |            |   |   |   |               |                |                                      |                                                       |                                  |           |          | Tree Protection Fence                                                                                           | *Root Prune |
|                                  |                                            |                   | dbh            | Critical Root Zone (radius ft) | Structural Rooting Zone (radius ft) | %         |                 | Avg. Radius (ft) | %             | * Dead Tree | * Poor Condition | *Assessment obscured | * Off Site/Co-Owned |          |            |   |   |   |               |                |                                      |                                                       |                                  |           |          |                                                                                                                 |             |
| 52                               | 1795                                       | black cherry      | 8              | 8                              | 2.6                                 | 60        | Codominant      | 10               | 30            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | poor form, poor structure, decay     | asymmetric crown, poor form, poor structure, deadwood |                                  | No impact |          |                                                                                                                 |             |
|                                  | 1796                                       | white mulberry    | 8              | 8                              | 2.6                                 | 75        | Codominant      | 15               | 50            |             |                  |                      |                     | REMOVE   |            |   |   |   |               |                | vines                                | asymmetric crown                                      |                                  | 100%      |          | Dead tree, leaning on off site tree. Possible elevated risk. Arborist recommends removal.                       |             |
|                                  | 1797                                       | oak species       | 10             |                                |                                     | 0         |                 |                  |               | X           |                  |                      |                     | REMOVE   |            |   |   |   | X             |                |                                      |                                                       |                                  | N/A       |          |                                                                                                                 |             |
| 53                               | 1798                                       | black cherry      | 8              | 8                              | 2.6                                 | 70        | Codominant      | 10               | 40            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                | asymmetric crown, vines                               |                                  | No impact |          |                                                                                                                 |             |
| 54                               | 1799                                       | black cherry      | 12             | 12                             | 4.0                                 | 70        | Codominant      | 15               | 50            |             |                  |                      |                     | PRESERVE | X          | X | X |   |               |                | vines                                | asymmetric crown, vines, major branch decay           |                                  | 15%       |          |                                                                                                                 |             |
| 55                               | 1800                                       | black cherry      | 9              | 9                              | 3.0                                 | 60        | Codominant      | 10               | 30            |             |                  |                      |                     | PRESERVE | X          | X | X |   |               |                | vines                                | asymmetric crown, vines                               | poor vigor                       | 17%       |          |                                                                                                                 |             |
| 56                               | 1801                                       | white oak         | 9              | 9                              | 3.0                                 | 70        | Intermediate    | 5                | 30            |             |                  |                      |                     | PRESERVE | X          | X |   |   |               |                | vines                                | vines                                                 | poor vigor                       | No impact |          |                                                                                                                 |             |
| 57                               | 1802                                       | southern red oak  | 36             | 36                             | 11.9                                | 80        | Codominant      | 40               | 80            |             |                  |                      |                     | PRESERVE | X          | X | X |   |               |                | vines                                | vines                                                 |                                  | 7%        |          |                                                                                                                 |             |
| 58                               | 1803                                       | white mulberry    | 8              | 8                              | 2.6                                 | 70        | Codominant      | 15               | 40            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                | asymmetric crown, deadwood                            |                                  | No impact |          |                                                                                                                 |             |
| 59                               | 1804                                       | black cherry      | 22             | 22                             | 7.3                                 | 65        | Codominant      | 20               | 40            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines, decay, cavities               | asymmetric crown, deadwood                            |                                  | No impact |          |                                                                                                                 |             |
| 60                               | 1805                                       | white mulberry    | 10             | 10                             | 3.3                                 | 75        | Codominant      | 15               | 50            |             |                  |                      |                     | PRESERVE | X          | X | X |   |               |                | vines                                | asymmetric crown, vines                               |                                  | 20%       |          | Dead tree. Possible elevated risk. Arborist recommends removal.                                                 |             |
|                                  | 1806                                       | oak species       | 13             |                                |                                     | 0         |                 |                  |               | X           |                  |                      |                     | REMOVE   |            |   |   |   | X             |                |                                      |                                                       |                                  | N/A       |          |                                                                                                                 |             |
| 61                               | 1807                                       | eastern red cedar | 11             | 11                             | 3.6                                 | 75        | Codominant      | 10               | 50            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | asymmetric crown                     |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 62                               | 1808                                       | eastern red cedar | 18             | 18                             | 5.9                                 | 65        | Codominant      | 15               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | decay, cavities                      | deadwood, broken branch                               |                                  | No impact |          |                                                                                                                 |             |
| 63                               | 1809                                       | American elm      | 9              | 9                              | 3.0                                 | 70        | Codominant      | 10               | 40            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | poor form, poor structure            | poor form, poor structure                             |                                  | No impact |          |                                                                                                                 |             |
| 64                               | 1810                                       | pin oak           | 8              | 8                              | 2.6                                 | 70        | Codominant      | 15               | 30            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 65                               | 1811                                       | pin oak           | 19             | 19                             | 6.3                                 | 80        | Codominant      | 20               | 80            |             |                  |                      |                     | PRESERVE | X          | X |   |   |               |                | lean                                 | asymmetric crown, vines                               |                                  | 11%       |          |                                                                                                                 |             |
| 66                               | 1812                                       | eastern red cedar | 11             | 11                             | 3.6                                 | 70        | Codominant      | 15               | 40            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | decay                                | asymmetric crown                                      |                                  | No impact |          |                                                                                                                 |             |
| 67                               | 1813                                       | blackgum          | 10             | 10                             | 3.3                                 | 80        | Codominant      | 20               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      | asymmetric crown                                      |                                  | No impact |          |                                                                                                                 |             |
| 68                               | 1814                                       | black walnut      | 11             | 11                             | 3.6                                 | 60        | Codominant      | 5                | 20            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | included bark                        | asymmetric crown, vines                               | dead twigs, poor vigor, dieback  | No impact | Decline. |                                                                                                                 |             |
| 69                               | 1815                                       | eastern red cedar | 13             | 13                             | 4.3                                 | 65        | Codominant      | 15               | 30            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                | asymmetric crown, vines, deadwood                     | dead twigs, poor vigor, dieback  | No impact | Decline. |                                                                                                                 |             |
| 70                               | 1816                                       | eastern red cedar | 16             | 16                             | 5.3                                 | 75        | Codominant      | 25               | 60            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 71                               | 1817                                       | eastern red cedar | 9              | 9                              | 3.0                                 | 80        | Codominant      | 10               | 80            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | vines                                | asymmetric crown, vines                               |                                  | No impact |          |                                                                                                                 |             |
| 72                               | 1818                                       | eastern red cedar | 14, 14, 10     | 22                             | 7.3                                 | 70        | Codominant      | 15               | 80            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | multiple leaders, weak crotch, vines | deadwood                                              |                                  | No impact |          |                                                                                                                 |             |
| 73                               | 1819                                       | black cherry      | 11             | 11                             | 3.6                                 | 80        | Codominant      | 20               | 80            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 74                               | 1820                                       | eastern red cedar | 10             | 10                             | 3.3                                 | 65        | Codominant      | 10               | 40            |             |                  |                      |                     | PRESERVE | X          |   |   | X |               |                | decay, unsound wood                  | asymmetric crown, vines, deadwood                     |                                  | No impact |          | Significant trunk decay. Monitoring/risk assessment is recommended.                                             |             |
|                                  | 1821                                       | American elm      | 17             |                                |                                     | 0         |                 |                  |               | X           |                  |                      |                     | REMOVE   |            |   |   |   | X             |                |                                      |                                                       |                                  | N/A       |          | Dead tree. Trail and off site properties within 1x height. Possible elevated risk. Arborist recommends removal. |             |
| 75                               | 1822                                       | eastern red cedar | 12             | 12                             | 4.0                                 | 70        | Codominant      | 15               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | basal decay                          | asymmetric crown, vines                               |                                  | No impact |          |                                                                                                                 |             |
| 76                               | 1823                                       | eastern red cedar | 16, 12         | 20                             | 6.6                                 | 75        | Codominant      | 15               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | multiple leaders, weak crotch        | deadwood                                              |                                  | No impact |          |                                                                                                                 |             |
| 77                               | 1824                                       | American elm      | 11             | 11                             | 3.6                                 | 75        | Codominant      | 20               | 40            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                | asymmetric crown                                      |                                  | No impact |          |                                                                                                                 |             |
| ✓                                | 1825                                       | blackgum          | 8              | 8                              | 2.6                                 | 55        | Codominant      | 5                | 20            |             | X                |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       | poor vigor, epicormic sprouts    | No impact | Decline. |                                                                                                                 |             |
|                                  | 1826                                       | eastern red cedar | 15, 15         | 21                             | 6.9                                 | 75        | Codominant      | 20               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | multiple leaders, weak crotch        |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 78                               | 1827                                       | eastern red cedar | 12             | 12                             | 4.0                                 | 75        | Codominant      | 15               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 79                               | 1828                                       | common persimmon  | 10             | 10                             | 3.3                                 | 75        | Codominant      | 15               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | sunken area                          |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 80                               | 1829                                       | American elm      | 9              | 9                              | 3.0                                 | 65        | Suppressed      | 15               | 20            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | poor form, poor form                 | asymmetric crown, poor form, poor structure           |                                  | No impact |          |                                                                                                                 |             |
|                                  | 1830                                       | eastern red cedar | 10             |                                |                                     | 0         |                 |                  |               | X           |                  |                      |                     | REMOVE   |            |   |   |   |               |                |                                      |                                                       |                                  | No impact |          | Dead tree. Leans back towards site.                                                                             |             |
| 81                               | 1831                                       | scarlet oak       | 28             | 28                             | 9.2                                 | 80        | Codominant      | 40               | 80            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      | deadwood                                              |                                  | No impact |          |                                                                                                                 |             |
| 82                               | 1832                                       | red maple         | 8, 8, 6        | 13                             | 4.3                                 | 65        | Codominant      | 10               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                | decay                                |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 83                               | 1833                                       | red maple         | 11, 11         | 16                             | 5.3                                 | 75        | Codominant      | 20               | 60            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 84                               | 1834                                       | red maple         | 11             | 11                             | 3.6                                 | 65        | Intermediate    | 10               | 30            |             |                  |                      |                     | PRESERVE | X          |   | X |   |               |                | vines                                |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 85                               | 1835                                       | white oak         | 26             | 26                             | 8.6                                 | 80        | Codominant      | 30               | 80            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 86                               | 1836                                       | red maple         | 11, 8          | 14                             | 4.6                                 | 75        | Codominant      | 20               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 87                               | 1837                                       | red maple         | 12, 11, 11, 10 | 22                             | 7.3                                 | 75        | Codominant      | 25               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 88                               | 1838                                       | American elm      | 18             | 18                             | 5.9                                 | 75        | Codominant      | 20               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 89                               | 1839                                       | white oak         | 18             | 18                             | 5.9                                 | 80        | Codominant      | 25               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
|                                  | 1840                                       | red maple         | 10             |                                |                                     | 0         |                 |                  |               | X           |                  |                      |                     | REMOVE   |            |   |   |   | X             |                |                                      |                                                       |                                  | No impact |          | Dead tree. Trail and off site properties within 1x height. Possible elevated risk. Arborist recommends removal. |             |
| 90                               | 1841                                       | red maple         | 13             | 13                             | 4.3                                 | 75        | Codominant      | 20               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 91                               | 1842                                       | blackgum          | 18, 10         | 21                             | 6.9                                 | 80        |                 | 0                |               |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 92                               | 1843                                       | red maple         | 12, 12         | 17                             | 5.6                                 | 75        | Codominant      | 15               | 40            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 93                               | 1844                                       | red maple         | 14             | 14                             | 4.6                                 | 75        | Codominant      | 15               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 94                               | 1845                                       | red maple         | 17             | 17                             | 5.6                                 | 80        | Codominant      | 25               | 70            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 95                               | 1846                                       | American elm      | 15             | 15                             | 5.0                                 | 75        | Codominant      | 15               | 40            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 96                               | 1847                                       | red maple         | 8, 8           | 11                             | 3.6                                 | 75        | Codominant      | 10               | 60            |             |                  |                      |                     | PRESERVE | X          |   |   |   |               |                |                                      |                                                       |                                  | No impact |          |                                                                                                                 |             |
| 97                               | 1848                                       | red maple         | 9              | 9                              | 3.0                                 | 70        | C               |                  |               |             |                  |                      |                     |          |            |   |   |   |               |                |                                      |                                                       |                                  |           |          |                                                                                                                 |             |



| TREE INVENTORY - Herndon Elementary School |        |                    |            |                                |                                     |           |                 |                  |               |             |                  |                       |                     |          |                        |             |               |                      |               |                                                                |                              |                                        |                                  |                                                                                                                                                        |                                                                                                                                |  |
|--------------------------------------------|--------|--------------------|------------|--------------------------------|-------------------------------------|-----------|-----------------|------------------|---------------|-------------|------------------|-----------------------|---------------------|----------|------------------------|-------------|---------------|----------------------|---------------|----------------------------------------------------------------|------------------------------|----------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--|
| TREE TO BE COUNTED TOWARD CREDIT           | Tree # | Species            | Size       | CRZ                            | SRZ                                 | Condition | Canopy Position | Crown Radius     | Crown Density |             |                  |                       |                     | Status   | Activities             |             |               |                      | Root Problems | Trunk Problems                                                 | Scaffold Branch Problems     | Small Branch and Twig Problems         | CRZ impacts (critical root zone) | Notes                                                                                                                                                  |                                                                                                                                |  |
|                                            |        |                    | dbh        | Critical Root Zone (radius ft) | Structural Rooting Zone (radius ft) | %         |                 | Avg. Radius (ft) | %             | * Dead Tree | * Poor Condition | * Assessment obscured | * Off Site/Co-Owned |          | *Tree Protection Fence | *Root Prune | *Vine removal | *Monitor/Risk Assess | *Hard Removal |                                                                |                              |                                        |                                  |                                                                                                                                                        |                                                                                                                                |  |
|                                            |        |                    |            |                                |                                     |           |                 |                  |               |             |                  |                       |                     |          |                        |             |               |                      |               |                                                                |                              |                                        |                                  |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1885   | American elm       | 15         |                                |                                     | 0         |                 |                  |               | X           |                  |                       |                     | REMOVE   | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        | Dead tree.                                                                                                                                             |                                                                                                                                |  |
| 130                                        | 1886   | red maple          | 22         | 22                             | 7.3                                 | 75        | Codominant      | 25               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1887   | white oak          | 9          |                                |                                     | 0         |                 |                  |               | X           |                  |                       |                     | REMOVE   |                        |             |               |                      | X             |                                                                |                              |                                        | No impact                        | Dead tree. Trail and off site properties within 1x height. Possible elevated risk. Arborist recommends removal.                                        |                                                                                                                                |  |
| 131                                        | 1888   | red maple          | 9          | 9                              | 3.0                                 | 80        | Intermediate    | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 132                                        | 1889   | red maple          | 10         | 10                             | 3.3                                 | 80        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 133                                        | 1890   | red maple          | 8          | 8                              | 2.6                                 | 75        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 134                                        | 1891   | red maple          | 13, 9, 8   | 18                             | 5.9                                 | 60        | Codominant      | 20               | 30            |             |                  |                       |                     | PRESERVE | X                      | X           | X             |                      |               | multiple leaders, weak crotch, decay, cavities, lean           | asymmetric crown, vines      |                                        | No impact                        | Significant trunk decay, 13" leader leans toward off site properties. Possible elevated risk. Monitoring/risk assessment is recommended.               |                                                                                                                                |  |
| 135                                        | 1892   | scarlet oak        | 28         | 28                             | 9.2                                 | 80        | Codominant      | 35               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 136                                        | 1893   | red maple          | 13, 11, 6  | 18                             | 5.9                                 | 75        | Codominant      | 20               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 137                                        | 1894   | red maple          | 25         | 25                             | 8.3                                 | 75        | Codominant      | 30               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 138                                        | 1895   | red maple          | 16         | 16                             | 5.3                                 | 70        | Codominant      | 20               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| ✓                                          | 1896   | white oak          | 18, 18     | 25                             | 8.3                                 | 45        | Codominant      | 30               | 60            |             | X                |                       |                     | PRESERVE | X                      |             | X             |                      |               | decay, cavities, unsound wood, multiple leaders, included bark | major branch decay, deadwood | poor vigor, dieback, epicormic sprouts | No impact                        | Significant internal decay detected. Trail and off site properties within 1X height. Possible elevated risk. Monitoring/risk assessment is recommended |                                                                                                                                |  |
| 139                                        | 1897   | white oak          | 14         | 14                             | 4.6                                 | 70        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 140                                        | 1898   | hickory species    | 10         | 10                             | 3.3                                 | 80        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 141                                        | 1899   | pin oak            | 10         | 10                             | 3.3                                 | 75        | Intermediate    | 10               | 50            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 142                                        | 1900   | scarlet oak        | 24         | 24                             | 7.9                                 | 65        | Codominant      | 20               | 50            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               | major branch decay, deadwood                                   | poor vigor, dieback          | No impact                              | Decline.                         |                                                                                                                                                        |                                                                                                                                |  |
| 143                                        | 1901   | hickory species    | 8          | 8                              | 2.6                                 | 75        | Codominant      | 10               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 144                                        | 1902   | black locust       | 12         | 12                             | 4.0                                 | 65        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                      |             | X             | X                    |               | decay                                                          | basal decay, vines           | asymmetric crown, deadwood             | poor vigor, dieback              | No impact                                                                                                                                              | Significant internal decay detected. Trail within 1X height. Possible elevated risk. Monitoring/risk assessment is recommended |  |
| 145                                        | 1903   | red maple          | 10         | 10                             | 3.3                                 | 75        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| ✓                                          | 1904   | red maple          | 9          | 9                              | 3.0                                 | 55        | Intermediate    | 5                | 20            |             | X                |                       |                     | PRESERVE | X                      |             |               |                      |               | decay, cavities                                                | deadwood                     | poor vigor, dieback                    | No impact                        | Decline.                                                                                                                                               |                                                                                                                                |  |
| 146                                        | 1905   | red maple          | 12         | 12                             | 4.0                                 | 75        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 147                                        | 1906   | white oak          | 13         | 13                             | 4.3                                 | 70        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 148                                        | 1907   | red maple          | 11         | 11                             | 3.6                                 | 75        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 149                                        | 1908   | black oak          | 23         | 23                             | 7.6                                 | 80        | Codominant      | 25               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 150                                        | 1909   | pin oak            | 29         | 29                             | 9.6                                 | 80        | Codominant      | 40               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 151                                        | 1910   | American elm       | 10         | 10                             | 3.3                                 | 70        | Codominant      | 15               | 40            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 152                                        | 1911   | scarlet oak        | 20         | 20                             | 6.6                                 | 80        | Codominant      | 30               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 153                                        | 1912   | pin oak            | 22         | 22                             | 7.3                                 | 80        | Codominant      | 25               | 80            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 154                                        | 1913   | sourwood           | 8          | 8                              | 2.6                                 | 60        | Intermediate    | 10               | 30            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        | Decline.                                                                                                                                               |                                                                                                                                |  |
| 155                                        | 1914   | white oak          | 23         | 23                             | 7.6                                 | 80        | Codominant      | 35               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 156                                        | 1915   | white oak          | 11, 8      | 14                             | 4.6                                 | 75        | Codominant      | 15               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 157                                        | 1916   | white oak          | 10         | 10                             | 3.3                                 | 70        | Codominant      | 10               | 30            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 158                                        | 1917   | white oak          | 24         | 24                             | 7.9                                 | 70        | Codominant      | 20               | 60            |             |                  |                       |                     | PRESERVE | X                      |             | X             |                      |               | decay, cavities                                                | asymmetric crown             |                                        | No impact                        | Significant internal decay detected. Possible elevated risk. Monitoring/risk assessment is recommended                                                 |                                                                                                                                |  |
| 159                                        | 1918   | black locust       | 9          | 9                              | 3.0                                 | 70        | Intermediate    | 10               | 40            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 160                                        | 1919   | American elm       | 15, 15, 12 | 24                             | 7.9                                 | 80        | Codominant      | 25               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1920   | eastern white pine | 14         | 14                             | 4.6                                 | 80        | Codominant      | 15               | 80            |             |                  |                       |                     | REMOVE   | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 161                                        | 1921   | Leyland cypress    | 14         | 14                             | 4.6                                 | 80        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                      |             | X             |                      |               | vines                                                          |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 162                                        | 1922   | Leyland cypress    | 13         | 13                             | 4.3                                 | 75        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             | X             |                      |               | vines                                                          |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 163                                        | 1923   | Leyland cypress    | 15         | 15                             | 5.0                                 | 75        | Codominant      | 15               | 80            |             |                  |                       |                     | PRESERVE | X                      | X           |               |                      |               |                                                                |                              |                                        | 23%                              |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1924   | black locust       | 10         |                                |                                     | 0         |                 |                  |               | X           |                  |                       |                     | REMOVE   |                        |             |               |                      |               |                                                                |                              |                                        | N/A                              | Dead tree.                                                                                                                                             |                                                                                                                                |  |
|                                            | 1925   | red maple          | 10         | 10                             | 3.3                                 | 75        | Isolated        | 10               | 80            |             |                  |                       |                     | REMOVE   |                        |             |               |                      |               | surface roots, compaction, mower damage                        |                              |                                        | 100%                             |                                                                                                                                                        |                                                                                                                                |  |
| 164                                        | 1926   | Leyland cypress    | 12         | 12                             | 4.0                                 | 80        | Intermediate    | 10               | 90            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 165                                        | 1927   | Leyland cypress    | 11         | 11                             | 3.6                                 | 80        | Intermediate    | 10               | 90            |             |                  |                       |                     | PRESERVE | X                      | X           |               |                      |               |                                                                |                              |                                        | 30%                              |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1928   | eastern white pine | 12         | 12                             | 4.0                                 | 75        |                 | 15               | 80            |             |                  |                       |                     | REMOVE   |                        |             |               |                      |               | surface roots, mower damage                                    |                              |                                        | 100%                             |                                                                                                                                                        |                                                                                                                                |  |
| 166                                        | 1929   | Leyland cypress    | 9          | 9                              | 3.0                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                      | X           |               |                      |               |                                                                |                              |                                        | 11%                              |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1930   | arborvitae         | 11         | 11                             | 3.6                                 | 80        |                 | 10               | 80            |             |                  |                       |                     | REMOVE   |                        |             |               |                      |               |                                                                |                              |                                        | 100%                             |                                                                                                                                                        |                                                                                                                                |  |
| 167                                        | 1931   | Leyland cypress    | 11         | 11                             | 3.6                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 168                                        | 1932   | Leyland cypress    | 11         | 11                             | 3.6                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 169                                        | 1933   | Leyland cypress    | 13         | 13                             | 4.3                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 170                                        | 1934   | Leyland cypress    | 12         | 12                             | 4.0                                 | 80        | Intermediate    | 10               | 80            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 171                                        | 1935   | Leyland cypress    | 9          | 9                              | 3.0                                 | 75        | Intermediate    | 10               | 60            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              |                                        | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1936   | arborvitae         | 9          | 9                              | 3.0                                 | 80        |                 | 10               | 80            |             |                  |                       |                     | REMOVE   |                        |             |               |                      |               |                                                                |                              |                                        | 100%                             |                                                                                                                                                        |                                                                                                                                |  |
|                                            | 1937   | red maple          | 10         | 10                             | 3.3                                 | 80        | Intermediate    | 15               | 80            |             |                  |                       |                     | REMOVE   |                        |             |               |                      |               | surface roots                                                  |                              |                                        | 100%                             |                                                                                                                                                        |                                                                                                                                |  |
| 172                                        | 1938   | eastern white pine | 11         | 11                             | 3.6                                 | 80        | Codominant      | 15               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              | dead twigs                             | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
| 173                                        | 1939   | eastern white pine | 17         | 17                             | 5.6                                 | 80        | Codominant      | 20               | 70            |             |                  |                       |                     | PRESERVE | X                      | X           |               |                      |               |                                                                |                              | dead twigs                             | 10%                              |                                                                                                                                                        |                                                                                                                                |  |
| 174                                        | 1940   | eastern white pine | 14         | 14                             | 4.6                                 | 80        | Codominant      | 20               | 70            |             |                  |                       |                     | PRESERVE | X                      | X           |               |                      |               |                                                                |                              | dead twigs                             | 3%                               |                                                                                                                                                        |                                                                                                                                |  |
| 175                                        | 1941   | eastern white pine | 15         | 15                             | 5.0                                 | 80        | Codominant      | 20               | 70            |             |                  |                       |                     | PRESERVE | X                      |             |               |                      |               |                                                                |                              | dead twigs                             | No impact                        |                                                                                                                                                        |                                                                                                                                |  |
|                                            |        |                    |            |                                |                                     |           |                 |                  |               |             |                  |                       |                     |          |                        |             |               |                      |               |                                                                |                              |                                        |                                  |                                                                                                                                                        |                                                                                                                                |  |



**CERTIFIED ARBORIST**  
  
**ISA**

Brian Howard  
ISA Certified Arborist  
MA 4677A  
ISA Certified Tree Risk  
Assessor - CTRA 916  


TREE INVENTORY  
 HERNDON ELEMENTARY SCHOOL  
 RENOVATION & ADDITION  
 DRANESVILLE ELECTION DISTRICT  
 TOWN OF HERNDON

PLAN DATE: OCTOBER 18, 2023

DESIGN BY: AAG/TAP/SAW

CHECKED BY: JDC

ARCHITECT: Cooper Carry

JURISDICTIONAL PLAN NO. SE#23-01

RDA PLAN #: 22029

SHEET NUMBER: C.12



Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 10.85

|                                                         |      |
|---------------------------------------------------------|------|
| Maximum reduction required:                             | 20%  |
| The site's net increase in impervious cover (acres) is: | 1.2  |
| Post-Development TP Load Reduction for Site (lb/yr):    | 4.49 |

Pre-ReDevelopment Land Cover (acres)

|                                                                                     | A Soils | B Soils | C Soils | D Soils | Totals |
|-------------------------------------------------------------------------------------|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested |         |         |         |         | 0.00   |
| Managed Turf (acres) -- disturbed, graded for yards or other turf to be             |         |         |         | 6.85    | 6.85   |
| Impervious Cover (acres)                                                            |         |         |         | 4.00    | 4.00   |
|                                                                                     |         |         |         |         | 10.85  |

Post-Development Land Cover (acres)

|                                                                                     | A Soils | B Soils | C Soils | D Soils | Totals |
|-------------------------------------------------------------------------------------|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested |         |         |         |         | 0.00   |
| Managed Turf (acres) -- disturbed, graded for yards or other turf to be             |         |         |         | 5.65    | 5.65   |
| Impervious Cover (acres)                                                            |         |         |         | 5.20    | 5.20   |
| Area Check                                                                          | OK.     | OK.     | OK.     | OK.     | 10.85  |

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

| Land Cover Summary-Pre          |        |                       |
|---------------------------------|--------|-----------------------|
| Pre-ReDevelopment               | Listed | Adjusted <sup>1</sup> |
| Forest/Open Space Cover (acres) | 0.00   | 0.00                  |
| Weighted Rv(forest)             | 0.00   | 0.00                  |
| % Forest                        | 0%     | 0%                    |
| Managed Turf Cover (acres)      | 6.85   | 5.65                  |
| Weighted Rv(turf)               | 0.25   | 0.25                  |
| % Managed Turf                  | 63%    | 59%                   |
| Impervious Cover (acres)        | 4.00   | 4.00                  |
| Rv(impervious)                  | 0.95   | 0.95                  |
| % Impervious                    | 37%    | 41%                   |
| Total Site Area (acres)         | 10.85  | 9.65                  |
| Site Rv                         | 0.51   | 0.54                  |

Treatment Volume and Nutrient Load

|                                                                                                                                            |        |        |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| Pre-ReDevelopment Treatment Volume (acre-ft)                                                                                               | 0.4594 | 0.4344 |
| Pre-ReDevelopment Treatment Volume (cubic feet)                                                                                            | 20,010 | 18,921 |
| Pre-ReDevelopment TP Load (lb/yr)                                                                                                          | 12.57  | 11.89  |
| Pre-ReDevelopment TP Load per acre (lb/acre/yr)                                                                                            | 1.16   | 1.23   |
| Baseline TP Load (lb/yr)<br>(0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover) |        | 3.96   |

<sup>1</sup> Adjusted Land Cover Summary:  
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column 1 shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)

4.49

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)

89.94

Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)

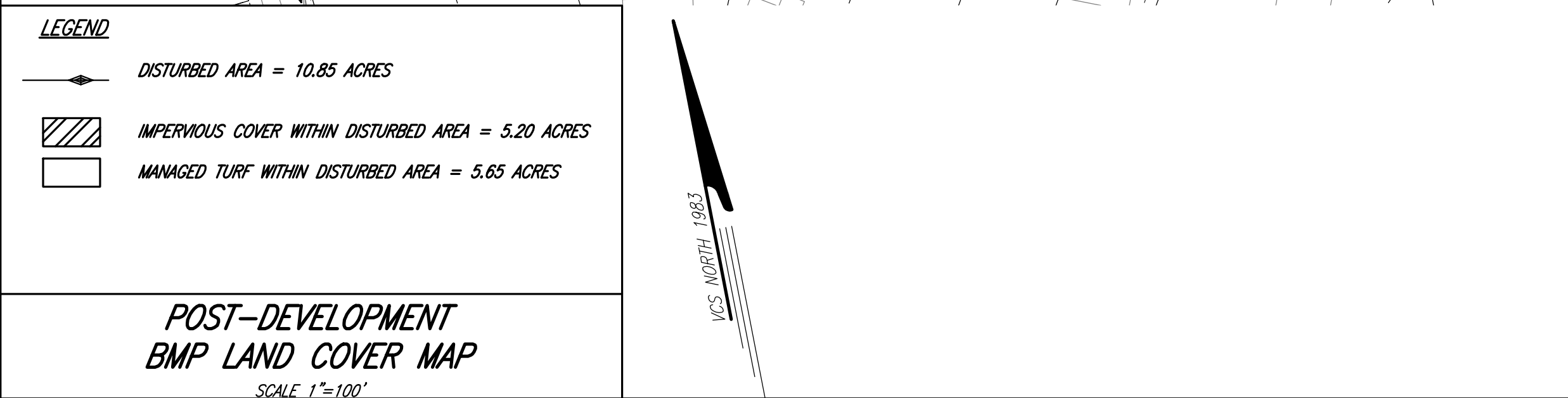
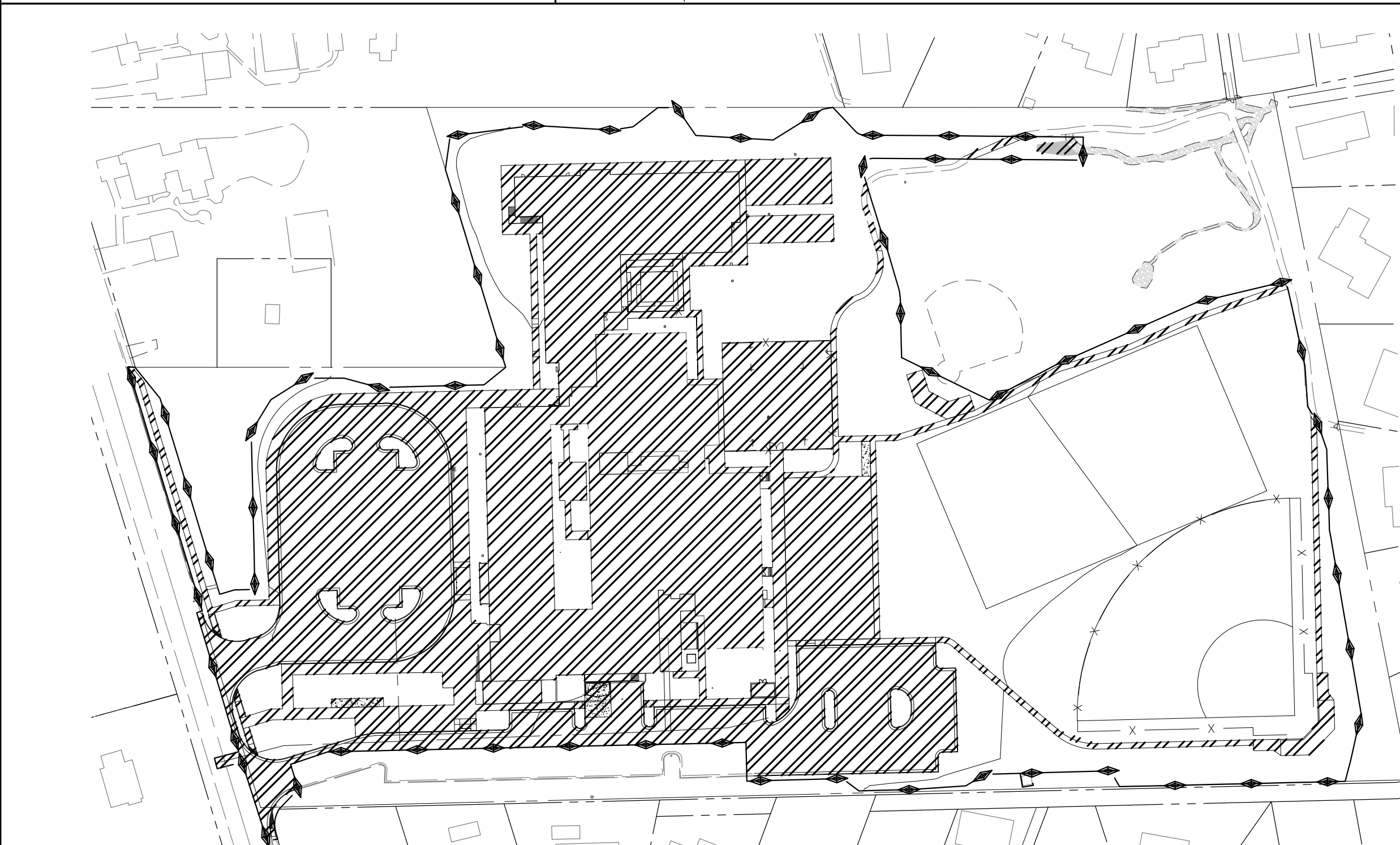
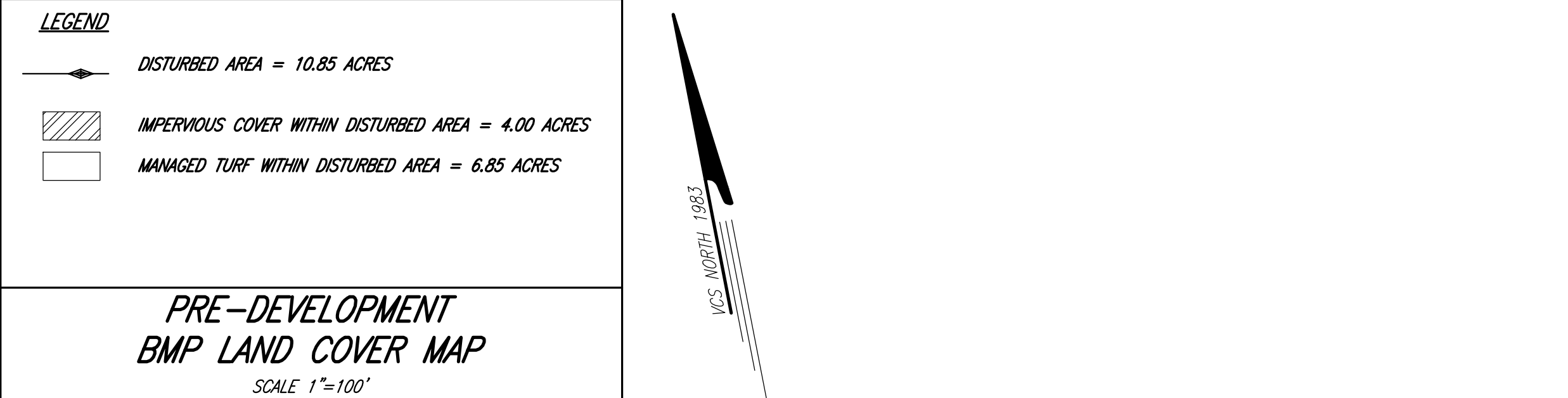
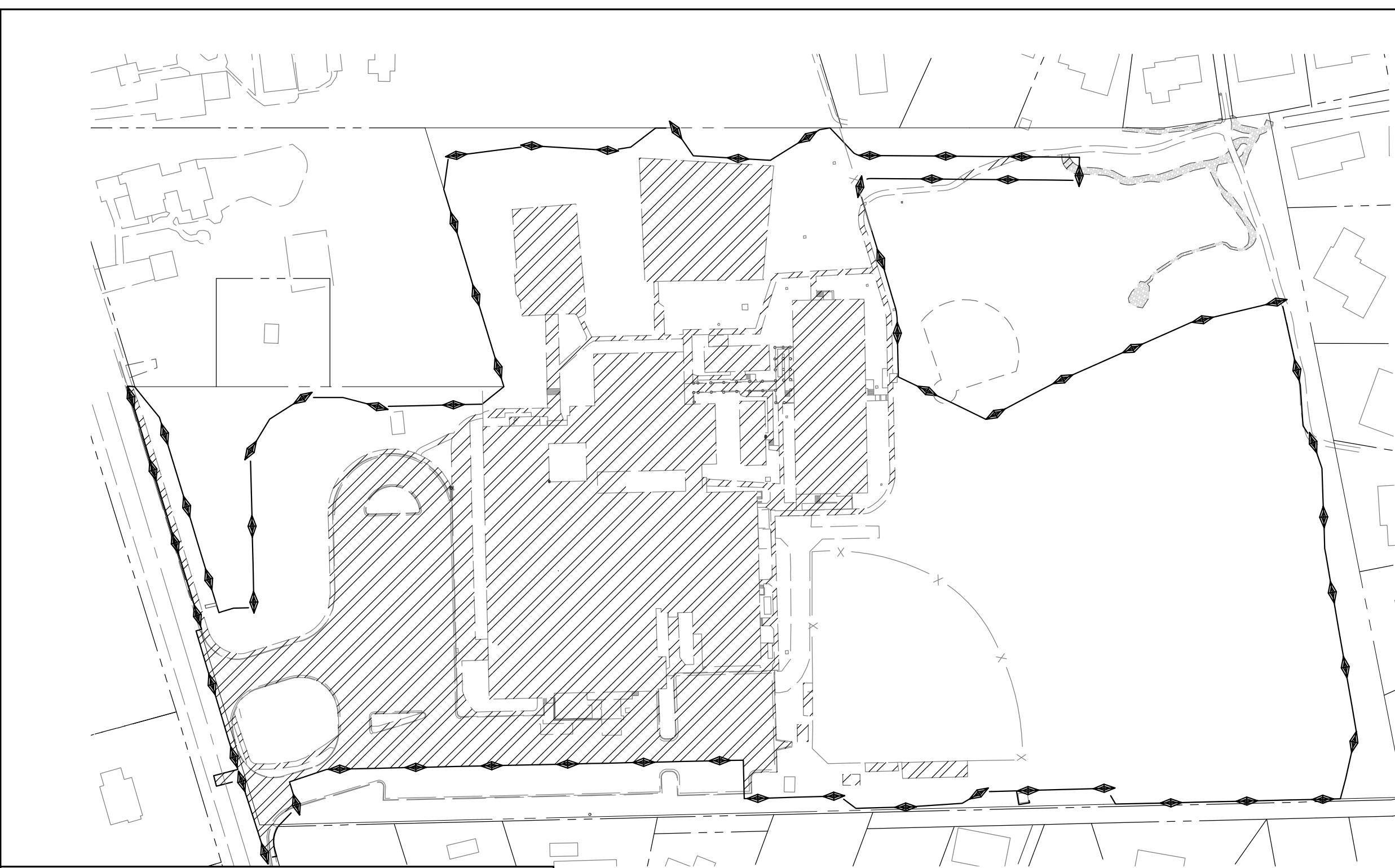
103.65

LAND COVER SUMMARY -- POST DEVELOPMENT

| Land Cover Summary-Post (Final) |       | Land Cover Summary-Post         |      | Land Cover Summary-Post         |      |
|---------------------------------|-------|---------------------------------|------|---------------------------------|------|
| Post ReDev. & New Impervious    |       | Post-ReDevelopment              |      | Post-Development New Impervious |      |
| Forest/Open Space Cover (acres) | 0.00  | Forest/Open Space Cover (acres) | 0.00 |                                 |      |
| Weighted Rv(forest)             | 0.00  | Weighted Rv(forest)             | 0.00 |                                 |      |
| % Forest                        | 0%    | % Forest                        | 0%   |                                 |      |
| Managed Turf Cover (acres)      | 5.65  | Managed Turf Cover (acres)      | 5.65 |                                 |      |
| Weighted Rv (turf)              | 0.25  | Weighted Rv (turf)              | 0.25 |                                 |      |
| % Managed Turf                  | 52%   | % Managed Turf                  | 59%  |                                 |      |
| Impervious Cover (acres)        | 5.20  | ReDev. Impervious Cover (acres) | 4.00 |                                 |      |
| Rv(impervious)                  | 0.95  | Rv(impervious)                  | 0.95 | New Impervious Cover (acres)    | 1.20 |
| % Impervious                    | 48%   | % Impervious                    | 41%  | Rv(impervious)                  | 0.95 |
| Final Site Area (acres)         | 10.85 | Total ReDev. Site Area (acres)  | 9.65 |                                 |      |
| Final Post Dev Site Rv          | 0.59  | ReDev Site Rv                   | 0.54 |                                 |      |

Treatment Volume and Nutrient Load

|                                                      |        |                                                         |        |                                                            |        |
|------------------------------------------------------|--------|---------------------------------------------------------|--------|------------------------------------------------------------|--------|
| Final Post-Development Treatment Volume (acre-ft)    | 0.5294 | Post-ReDevelopment Treatment Volume (acre-ft)           | 0.4344 | Post-Development Treatment Volume (acre-ft)                | 0.0950 |
| Final Post-Development Treatment Volume (cubic feet) | 23,060 | Post-ReDevelopment Treatment Volume (cubic feet)        | 18,921 | Post-Development Treatment Volume (cubic feet)             | 4,138  |
| Final Post-Development TP Load (lb/yr)               | 14.49  | Post-ReDevelopment Load (TP) (lb/yr)*                   | 11.89  | Post-Development TP Load (lb/yr)                           | 2.60   |
| Final Post-Development TP Load per acre (lb/acre/yr) | 1.34   | Post-ReDevelopment TP Load per acre (lb/acre/yr)        | 1.23   |                                                            |        |
|                                                      |        | Max. Reduction Required (Below Pre-ReDevelopment Load)  | 20%    |                                                            |        |
|                                                      |        | TP Load Reduction Required for Redeveloped Area (lb/yr) | 2.38   | TP Load Reduction Required for New Impervious Area (lb/yr) | 2.11   |



**Rinker Design Associates, P.C.**  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 www.rdacivil.com  
Engineering \* Surveying \* Transportation \* Environmental Services

BMP LAND COVER SUMMARY

**HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION**  
DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

|                             |                  |
|-----------------------------|------------------|
| PLAN DATE:                  | OCTOBER 18, 2023 |
| DESIGN BY:                  | AAG/TAP/SAW      |
| CHECKED BY:                 | JDC              |
| ARCHITECT:                  | Cooper Carry     |
| JURISDICTIONAL PLAN NO. SE# | 23-01            |
| RDA PLAN #:                 | 22029            |
| SHEET NUMBER:               | C.13             |



SWM NARRATIVE

TWO SEPARATE STORMTECH MC-3500 CHAMBER FACILITIES WITH ISOLATOR ROWS ARE PROPOSED TO SATISFY ADEQUATE OUTFALL REQUIREMENTS ONSITE. ALL STORMWATER MANAGEMENT DETENTION FACILITIES SHALL BE MAINTAINED BY FAIRFAX COUNTY PUBLIC SCHOOLS.

BMP NARRATIVE

THE DISTURBED AREA PROPOSED WITH THE PROJECT IS 10.85 ACRES. THE NET INCREASE IN THE IMPERVIOUS AREA IS 1.20 ACRES. THE TOTAL TP REDUCTION REQUIRED FOR THE PROJECT IS 4.49 LB/YR. STORMTECH MC-3500 CHAMBERS WITH ISOLATOR PLUS ROWS ARE PROPOSED TO ACHIEVE THE BMP REQUIREMENTS. STORMTECH ISOLATOR ROWS ARE DEQ APPROVED AND HAVE BEEN AWARDED 40% TP REMOVAL EFFICIENCY. ONE STORMTECH MC-3500 CHAMBER SYSTEM WITH ISOLATOR ROWS WILL CAPTURE DRAINAGE AREA A AND A SECOND STORMTECH MC-3500 CHAMBER SYSTEM WITH ISOLATOR ROWS WILL CAPTURE DRAINAGE AREA B AS SHOWN ON THE PROPOSED BMP DRAINAGE MAP (SEE THIS SHEET.) VRRM SPREADSHEET RESULTS SHOW TP REDUCTION ACHIEVED BY DRAINAGE AREA A TO BE 2.17 LB/YR AND TP REDUCTION ACHIEVED BY DRAINAGE AREA B TO BE 2.34 LB/YR FOR A TOTAL OF 4.51 LB/YR. THEREFORE, THE ENTIRE REDUCTION REQUIREMENT IS MET ON-SITE.

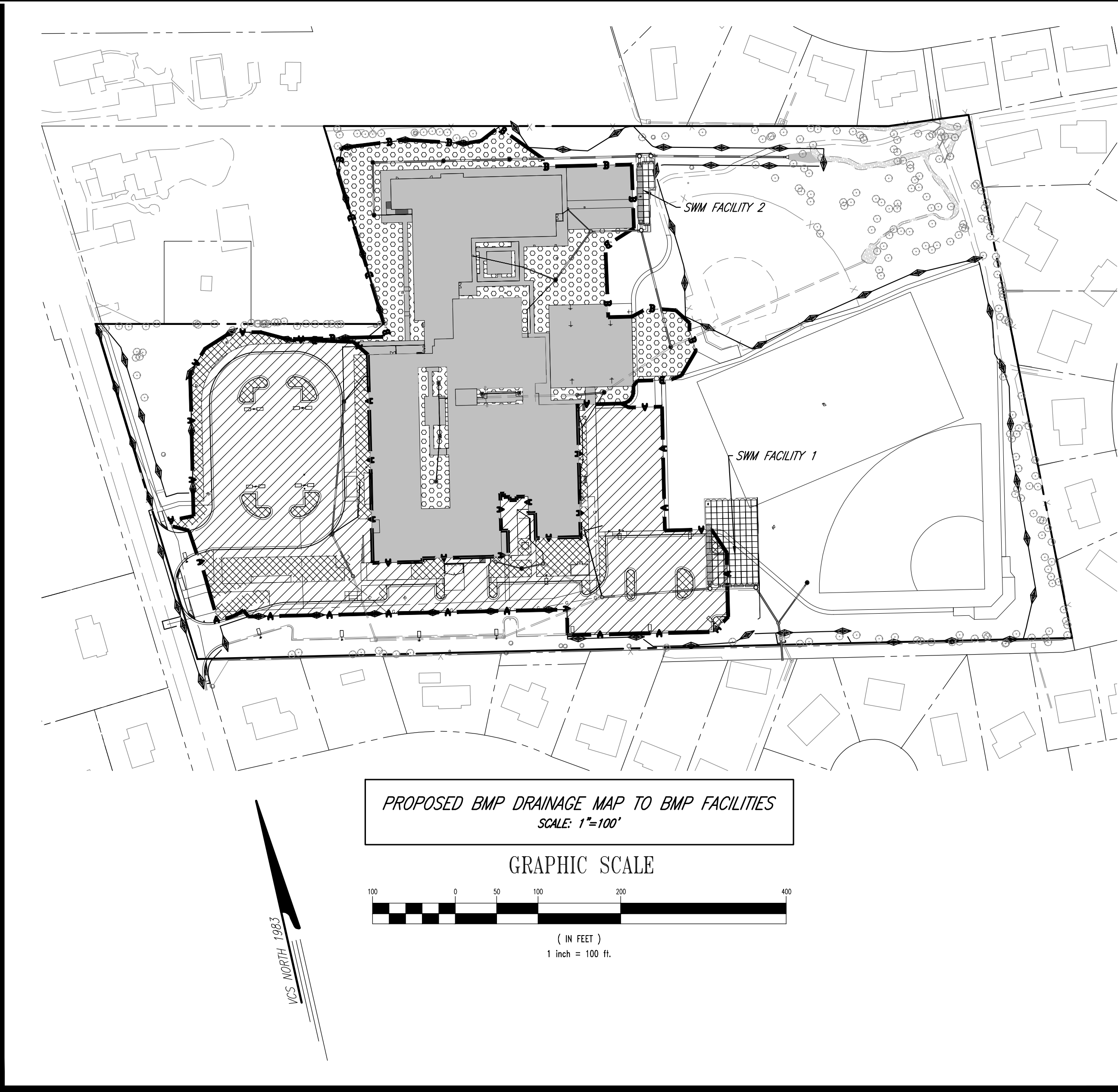
SW-10 CERTIFICATION

THERE ARE NO WATER IMPOUNDMENTS LOCATED WITHIN THE INFLUENCE AREA OF THIS PROJECT.

RPA CERTIFICATION

THIS PROJECT CONFORMS TO THE CHESAPEAKE BAY PRESERVATION ORDINANCE AMENDMENT WHICH WAS ADOPTED BY THE BOARD OF SUPERVISORS ON JULY 7, 2003; EFFECTIVE NOVEMBER 18, 2003 AND AMENDMENTS THROUGH JULY, 2005. THERE ARE NO AREAS OF RPA'S ON THIS SITE PER CURRENT COUNTY MAPPING.

| Site Compliance Summary                                   |      |              |  |
|-----------------------------------------------------------|------|--------------|--|
| Maximum % Reduction Required Below Pre-ReDevelopment Load |      | 20%          |  |
| Total Runoff Volume Reduction (ft <sup>3</sup> )          | 0    | ** TARGET TP |  |
| Total TP Load Reduction Achieved (lb/yr)                  | 4.51 |              |  |
| Total TN Load Reduction Achieved (lb/yr)                  | 0.00 |              |  |
| Remaining Post Development TP Load (lb/yr)                | 9.98 |              |  |
| Remaining TP Load Reduction (lb/yr) Required              | 0.00 |              |  |

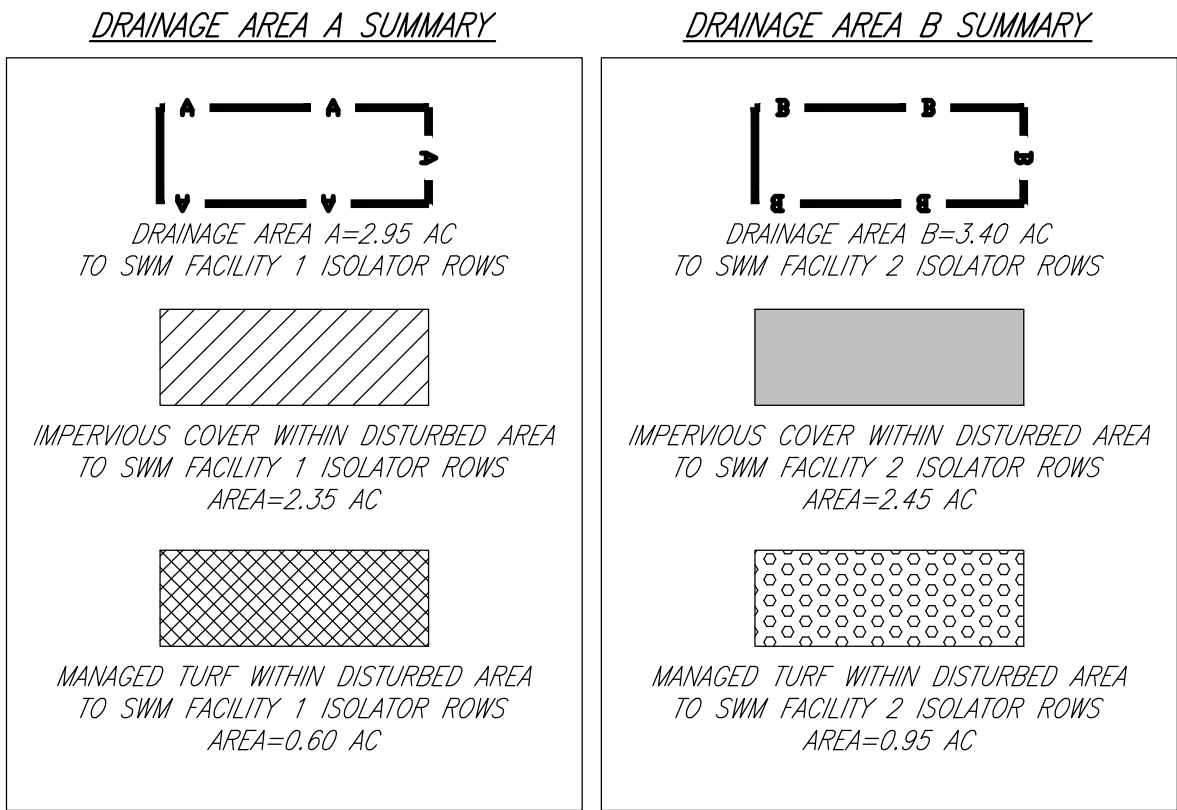


DRAINAGE AREA A VRRM INFORMATION

| Practice                                      | Runoff Reduction Credit (%) | Managed Turf Credit Area (acres) | Impervious Cover Credit Area (acres) | Volume from Upstream Practice (ft <sup>3</sup> ) | Runoff Reduction (ft <sup>3</sup> ) | Remaining Runoff Volume (ft <sup>3</sup> ) | Total BMP Treatment Volume (ft <sup>3</sup> ) | Phosphorus Removal Efficiency (%) | Phosphorus Load from Upstream Practices (lb) | Untreated Phosphorus Load to Practice (lb) | Phosphorus Removed By Practice (lb) | Remaining Phosphorus Load (lb) | Downstream Practice to be Employed |
|-----------------------------------------------|-----------------------------|----------------------------------|--------------------------------------|--------------------------------------------------|-------------------------------------|--------------------------------------------|-----------------------------------------------|-----------------------------------|----------------------------------------------|--------------------------------------------|-------------------------------------|--------------------------------|------------------------------------|
| 14. Manufactured Treatment Devices (no RR)    |                             |                                  |                                      |                                                  |                                     |                                            |                                               |                                   |                                              |                                            |                                     |                                |                                    |
| 14.b. Manufactured Treatment Device-Filtering | 0                           | 0.60                             | 2.35                                 | 0                                                | 0                                   | 8,648                                      | 8,648                                         | 40                                | 0.00                                         | 5.43                                       | 2.17                                | 3.26                           | None                               |

DRAINAGE AREA B VRRM INFORMATION

| Practice                                      | Runoff Reduction Credit (%) | Managed Turf Credit Area (acres) | Impervious Cover Credit Area (acres) | Volume from Upstream Practice (ft <sup>3</sup> ) | Runoff Reduction (ft <sup>3</sup> ) | Remaining Runoff Volume (ft <sup>3</sup> ) | Total BMP Treatment Volume (ft <sup>3</sup> ) | Phosphorus Removal Efficiency (%) | Phosphorus Load from Upstream Practices (lb) | Untreated Phosphorus Load to Practice (lb) | Phosphorus Removed By Practice (lb) | Remaining Phosphorus Load (lb) | Downstream Practice to be Employed |
|-----------------------------------------------|-----------------------------|----------------------------------|--------------------------------------|--------------------------------------------------|-------------------------------------|--------------------------------------------|-----------------------------------------------|-----------------------------------|----------------------------------------------|--------------------------------------------|-------------------------------------|--------------------------------|------------------------------------|
| 14. Manufactured Treatment Devices (no RR)    |                             |                                  |                                      |                                                  |                                     |                                            |                                               |                                   |                                              |                                            |                                     |                                |                                    |
| 14.b. Manufactured Treatment Device-Filtering | 0                           | 0.95                             | 2.45                                 | 0                                                | 0                                   | 9,311                                      | 9,311                                         | 40                                | 0.00                                         | 5.84                                       | 2.34                                | 3.51                           |                                    |



**Rinker Design Associates, P.C.**  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 [www.rdacivil.com](http://www.rdacivil.com)  
Engineering \* Surveying \* Transportation \* Environmental Services

SWM -BMP NARRATIVE & COMPUTATIONS

HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION

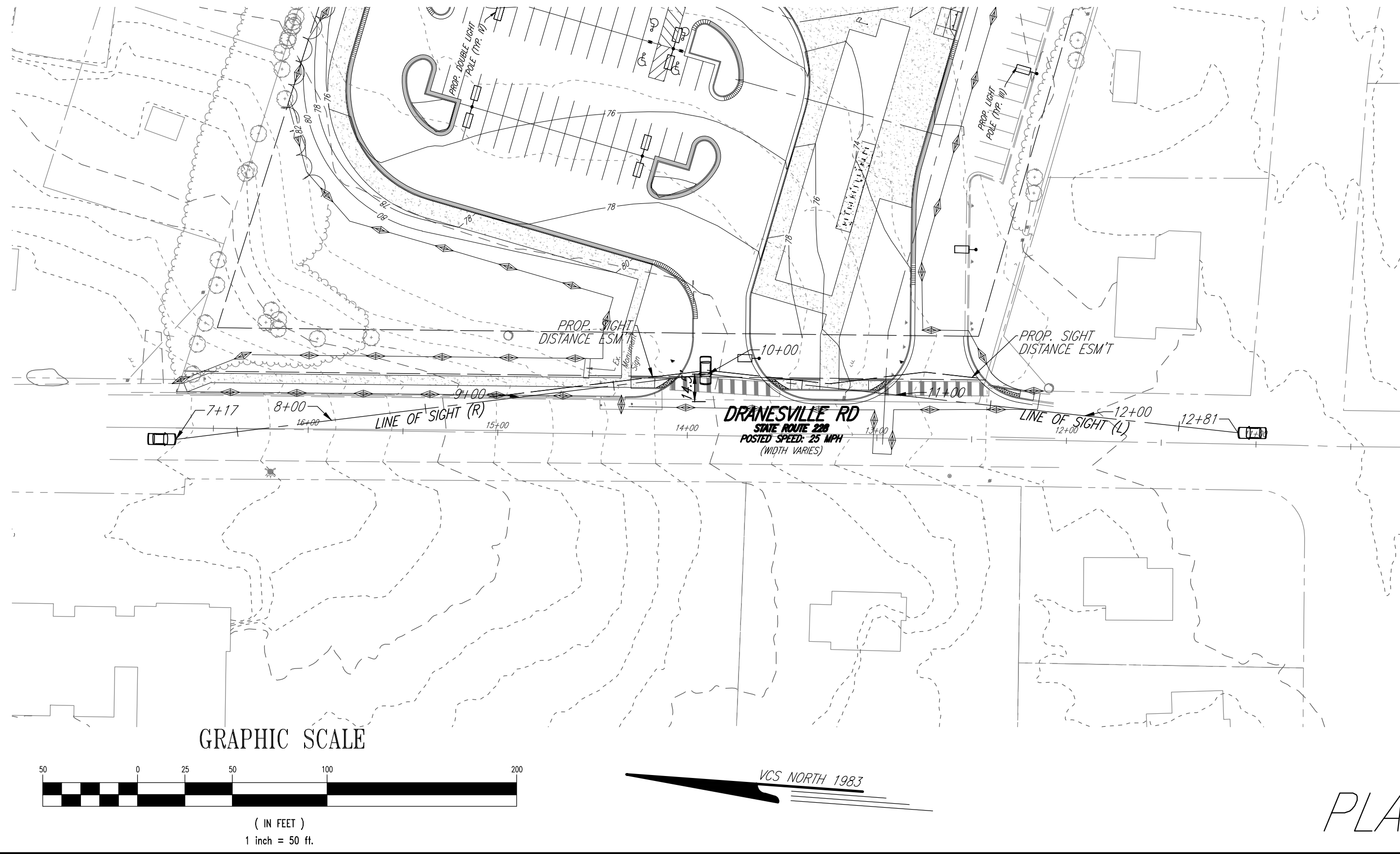
DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

|                          |                  |
|--------------------------|------------------|
| PLAN DATE:               | OCTOBER 18, 2023 |
| DESIGN BY:               | AAG/TAP/SAW      |
| CHECKED BY:              | JDC              |
| ARCHITECT:               | Cooper Carry     |
| JURISDICTIONAL PLAN NO.: | SE#23-01         |
| RDA PLAN #:              | 22029            |
| SHEET NUMBER:            | C.14             |



DRANESVILLE ROAD NORTH ENTRANCE

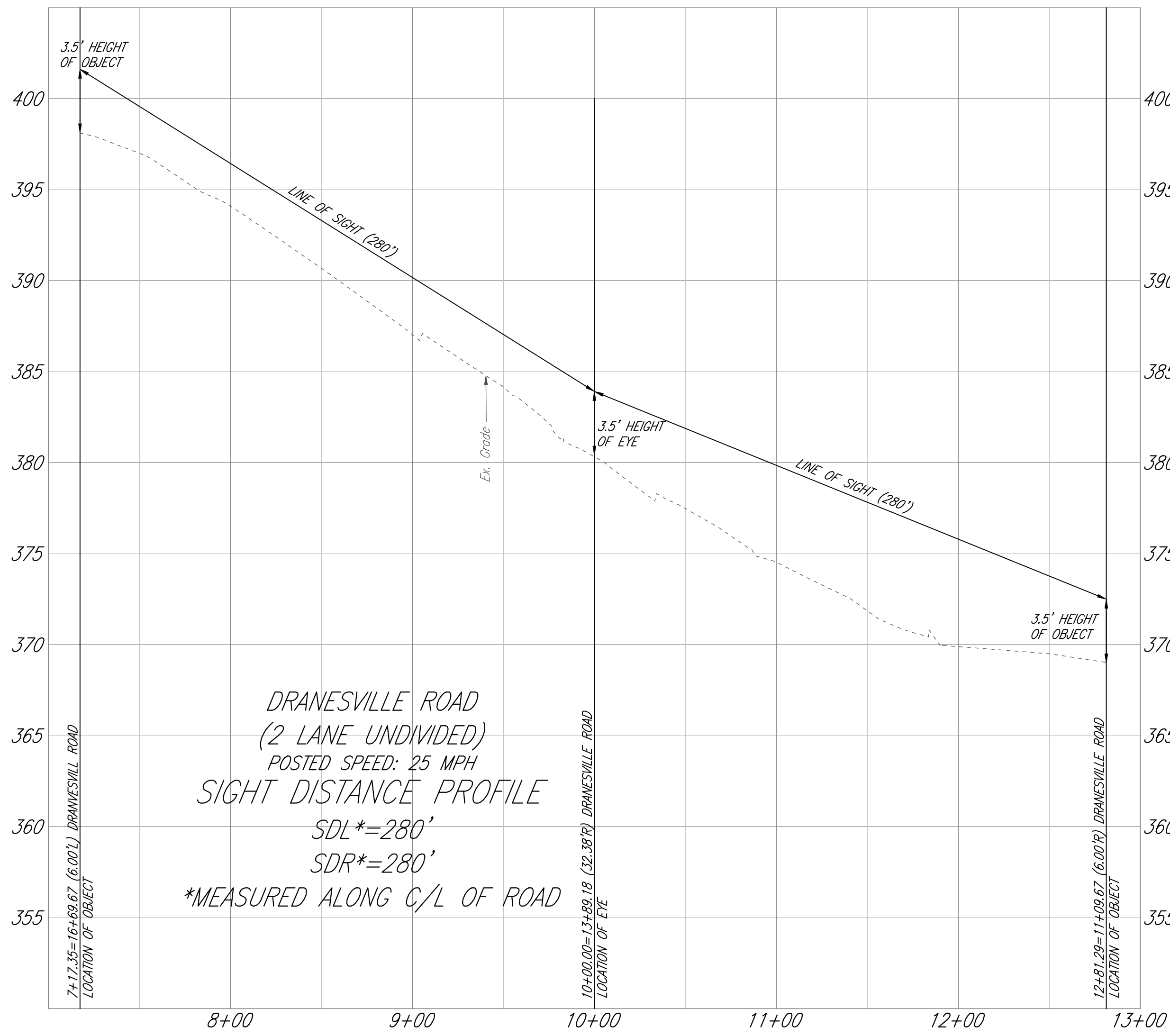


DRANESVILLE ROAD SOUTH ENTRANCE



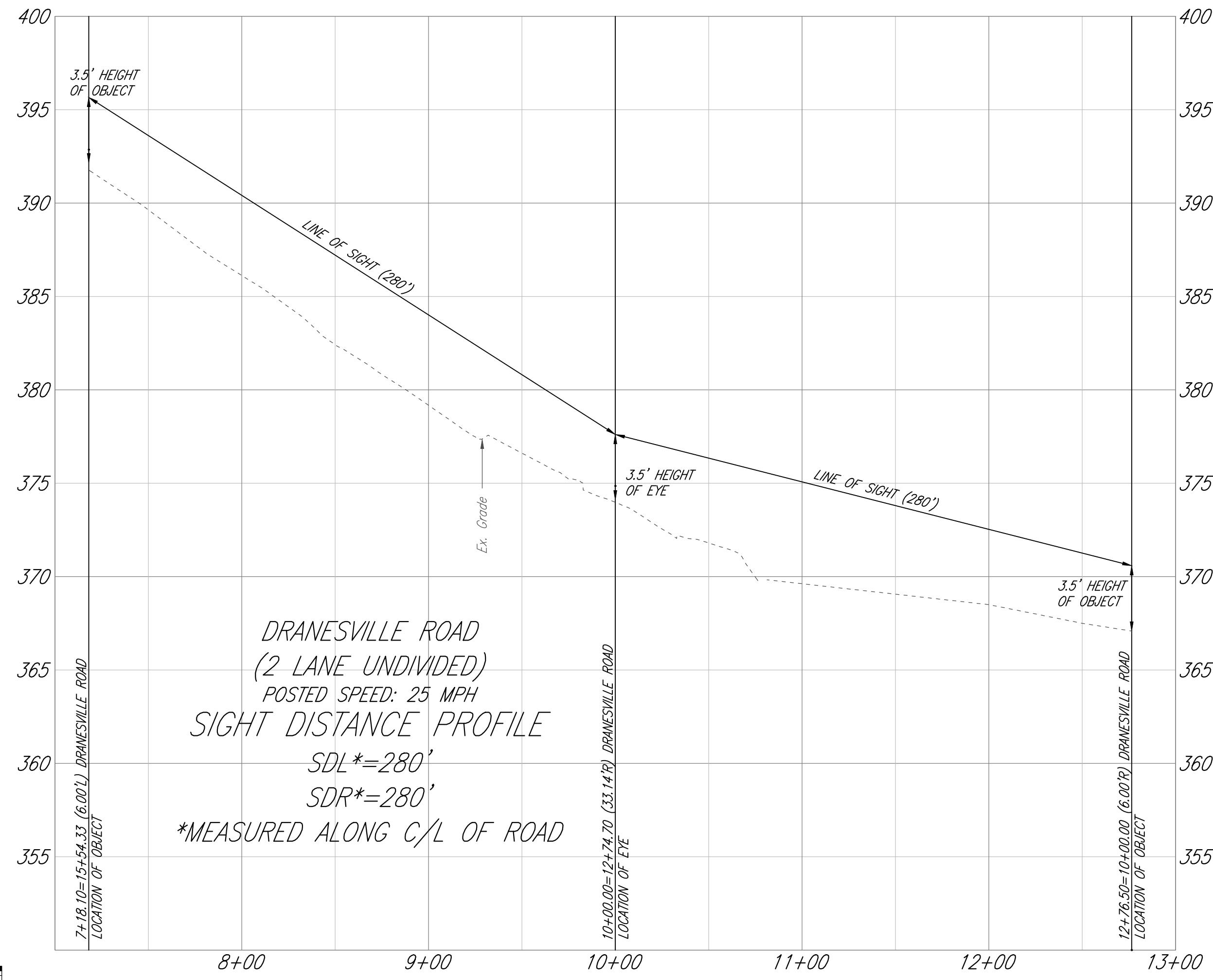
BUS LANE ENTRANCE

PROFILE



PROFILE

KISS AND RIDE ENTRANCE



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SIGHT DISTANCE PROFILES

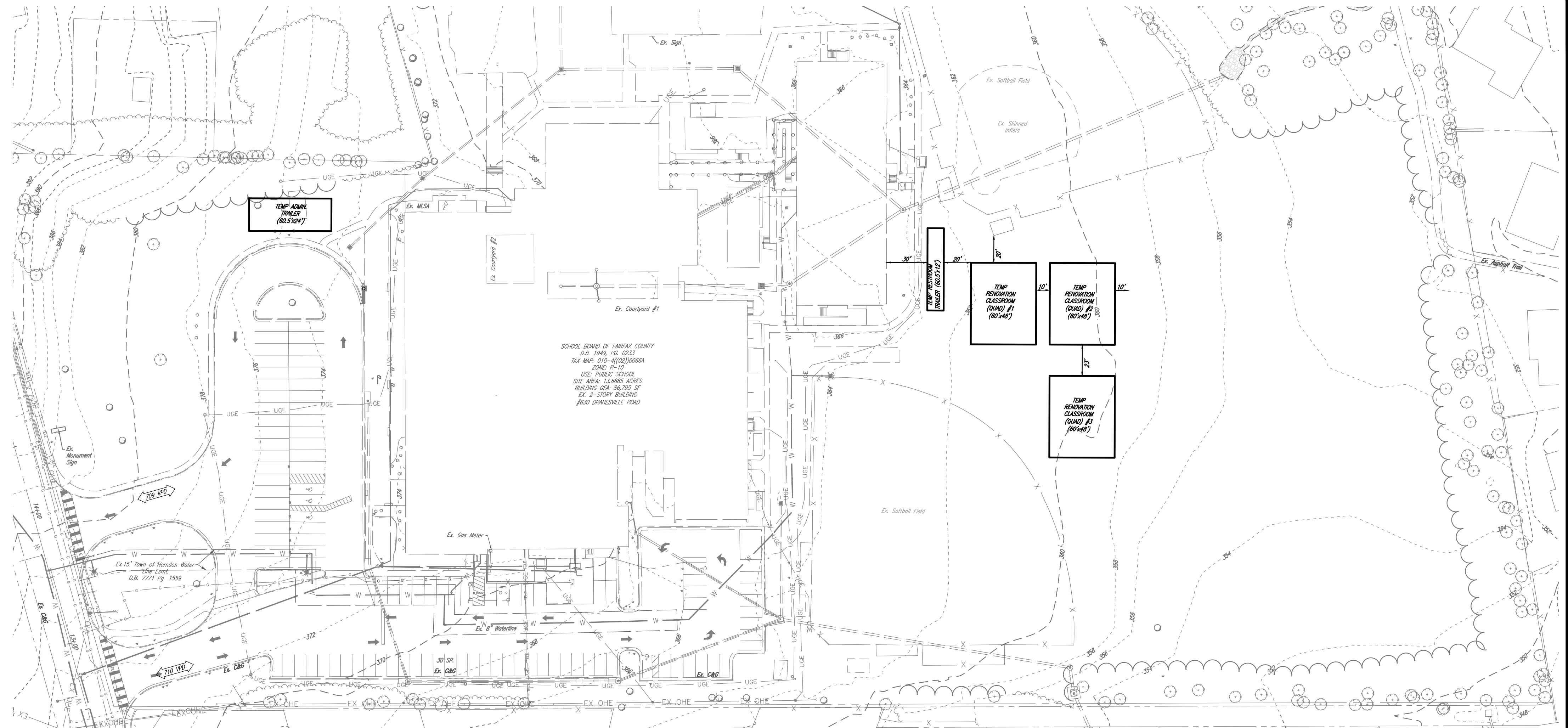
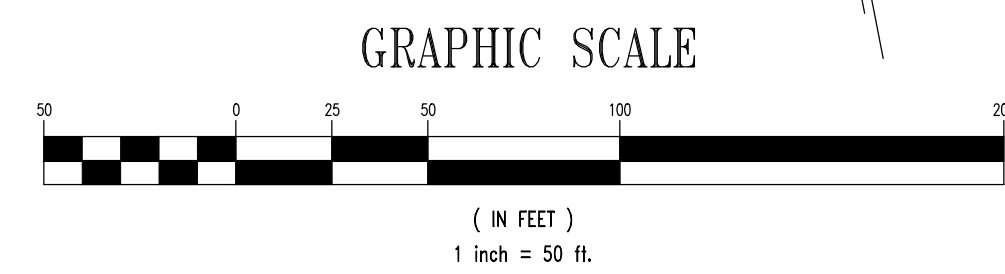
**HERNDON ELEMENTARY SCHOOL  
RENOVATION & ADDITION**  
DRANESVILLE ELECTION DISTRICT  
TOWN OF HERNDON

REVISIONS:

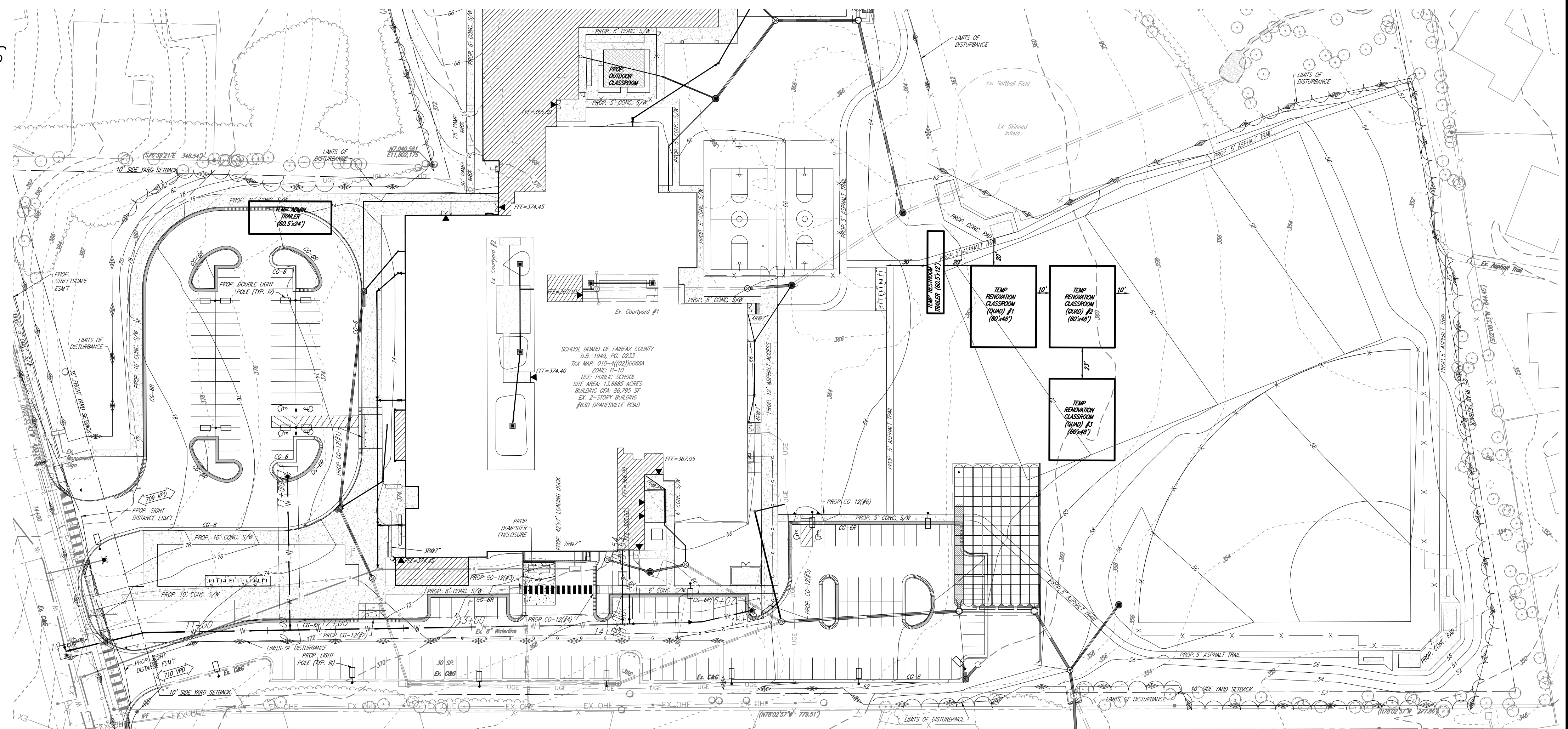
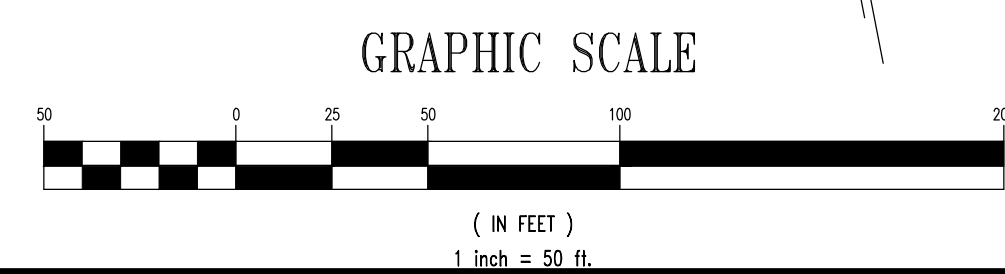
|                          |                  |
|--------------------------|------------------|
| PLAN DATE:               | OCTOBER 18, 2023 |
| DESIGN BY:               | AAG/TAP/SAW      |
| CHECKED BY:              | JDC              |
| ARCHITECT:               | Cooper Carry     |
| JURISDICTIONAL PLAN NO.: | SE#23-01         |
| RDA PLAN #:              | 22029            |
| SHEET NUMBER:            | C.15             |



## EXISTING CONDITIONS



## PROPOSED CONDITIONS



NOTE: THE FINAL LOCATION FOR THESE TEMPORARY FACILITIES WILL BE DETERMINED AT THE TIME OF THE TEMPORARY USE PERMIT.







WELLS + ASSOCIATES

# HERNDON ELEMENTARY SCHOOL

SE#23-01

TRAFFIC STUDY – 2<sup>ND</sup> SUBMISSION

March 28, 2023

As Revised Through October 17, 2023



# **HERNDON ELEMENTARY SCHOOL TRAFFIC STUDY TOWN OF HERNDON, VIRGINIA**

***2<sup>nd</sup> Submission***

**SE# 23-01**

Prepared for:

**Fairfax County Public Schools (Applicant)**

Prepared by:

Kevin R. Fellin, P.E.

[krfellin@wellsandassociates.com](mailto:krfellin@wellsandassociates.com)

Benja D. McDowell

[bdmcdowell@wellsandassocites.com](mailto:bdmcdowell@wellsandassocites.com)

Wells + Associates

703.365.9262

[www.WellsAndAssociates.com](http://www.WellsAndAssociates.com)

**March 28, 2023**

**As Revised Through October 17, 2023**



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**HERNDON ELEMENTARY SCHOOL  
TRAFFIC STUDY  
TOWN OF HERNDON, VIRGINIA**

**TABLE OF CONTENTS**

|                                                                       | <u>PAGE</u> |
|-----------------------------------------------------------------------|-------------|
| <b>Section 1</b>                                                      |             |
| <b>INTRODUCTION</b>                                                   | <b>1</b>    |
| PURPOSE .....                                                         | 1           |
| SITE LOCATION .....                                                   | 1           |
| EXISTING CONDITIONS .....                                             | 1           |
| PROPOSED CONDITIONS .....                                             | 3           |
| SCOPING MEETING .....                                                 | 6           |
| STUDY AREA .....                                                      | 6           |
| STUDY OBJECTIVES.....                                                 | 6           |
| STUDY METHODOLOGY .....                                               | 8           |
| <b>Section 2</b>                                                      |             |
| <b>BACKGROUND INFORMATION</b>                                         | <b>9</b>    |
| ROAD NETWORK .....                                                    | 9           |
| PEDESTRIAN FACILITIES.....                                            | 9           |
| SCHOOL BUS UTILIZATION .....                                          | 11          |
| TRIP GENERATION ASSESSMENT .....                                      | 11          |
| <b>Section 3</b>                                                      |             |
| <b>ACCESS AND CIRCULATION ASSESSMENT</b>                              | <b>13</b>   |
| CURRENT OPERATIONS .....                                              | 13          |
| FIELD OBSERVATIONS ON WEDNESDAY, FEBRUARY 1, 2023 .....               | 13          |
| Traffic Safety Attendants .....                                       | 13          |
| AM Peak Period Operations.....                                        | 13          |
| PM Peak Period Operations.....                                        | 14          |
| AM and PM Peak Period Field Pictures.....                             | 15          |
| SUPPLEMENTAL FIELD OBSERVATIONS ON THURSDAY, SEPTEMBER 28, 2023 ..... | 31          |
| Student Enrollment.....                                               | 31          |
| Traffic Safety Attendant.....                                         | 31          |
| AM and PM Peak Period Field Pictures.....                             | 31          |
| PROPOSED OPERATIONS .....                                             | 35          |
| <b>Section 4</b>                                                      |             |
| <b>ANALYSIS OF EXISTING CONDITIONS</b>                                | <b>37</b>   |
| TRAFFIC COUNTS .....                                                  | 37          |
| OPERATIONAL ANALYSIS.....                                             | 42          |
| Levels of Service.....                                                | 42          |
| Queues .....                                                          | 46          |

HERNDON ELEMENTARY SCHOOL  
TRAFFIC STUDY  
TOWN OF HERNDON, VIRGINIA

TABLE OF CONTENTS, CONTINUE

|                                         | <u>PAGE</u> |
|-----------------------------------------|-------------|
| <b>Section 5</b>                        |             |
| <b>ANALYSIS OF FUTURE CONDITIONS</b>    | <b>47</b>   |
| TRAFFIC VOLUMES .....                   | 47          |
| Methodology/Assumptions .....           | 47          |
| Site Traffic Reassignments .....        | 47          |
| OPERATIONAL ANALYSIS.....               | 50          |
| Levels of Service.....                  | 50          |
| Queues .....                            | 50          |
| Proposed Operational Improvements ..... | 50          |
| OFF-SITE INTERSECTION IMPACTS.....      | 51          |
| <br><b>Section 6</b>                    |             |
| <b>ACCESS MANAGMENT</b>                 | <b>53</b>   |
| <br><b>Section 7</b>                    |             |
| <b>CRASH DATA</b>                       | <b>54</b>   |
| TOWN OF HERNDON CRASH DATA .....        | 54          |
| VDOT CRASH DATA .....                   | 54          |
| <br><b>Section 8</b>                    |             |
| <b>CONCLUSIONS AND RECOMMENDATIONS</b>  | <b>55</b>   |
| CONCLUSIONS .....                       | 55          |
| RECOMMENDATIONS .....                   | 57          |



**HERNDON ELEMENTARY SCHOOL**  
**TRAFFIC STUDY**  
**TOWN OF HERNDON, VIRGINIA**

| LIST OF FIGURES |                                                                                 |  |             |
|-----------------|---------------------------------------------------------------------------------|--|-------------|
| FIGURE          | TITLE                                                                           |  | <u>PAGE</u> |
| 1-1             | Site Location and Study Intersections.....                                      |  | 2           |
| 1-2             | Existing Conditions Plan (Reduction) .....                                      |  | 4           |
| 1-3             | Proposed Conditions Plan (Reduction) .....                                      |  | 5           |
| 2-1             | Existing Pedestrian Facilities .....                                            |  | 10          |
| 3-1             | Side-by-Side Comparison Between Current and Proposed Conditions.....            |  | 36          |
| 4-1             | Existing Peak Hour Vehicular Traffic Volumes (All Vehicles) .....               |  | 38          |
| 4-2             | Existing Peak Hour Vehicular Traffic Volumes (School and Shuttle Buses Only)..  |  | 39          |
| 4-3             | Existing Peak Hour Pedestrian Traffic Volumes .....                             |  | 40          |
| 4-4             | Existing Peak Hour Bicycle Traffic Volumes .....                                |  | 41          |
| 4-5             | Existing Lane Use and Traffic Controls.....                                     |  | 43          |
| 5-1             | Reassignment of Existing Site Traffic Reflecting Proposed Site Improvements ... |  | 48          |
| 5-2             | Reassigned, Existing Peak Hour Vehicular Traffic Volumes.....                   |  | 49          |
| 5-3             | Future Lane Use and Traffic Controls .....                                      |  | 52          |



**HERNDON ELEMENTARY SCHOOL  
TRAFFIC STUDY  
TOWN OF HERNDON, VIRGINIA**

| LIST OF TABLES |                                                |             |
|----------------|------------------------------------------------|-------------|
| TABLE          | TITLE                                          | <u>PAGE</u> |
| 2-1            | Site Trip Generation Summary.....              | 12          |
| 4-1            | Level of Service Summary .....                 | 44          |
| 4-2            | 95 <sup>th</sup> Percentile Queue Summary..... | 45          |





**HERNDON ELEMENTARY SCHOOL  
TRAFFIC STUDY  
TOWN OF HERNDON, VIRGINIA**

**LIST OF APPENDICES**

| <b>APPENDIX</b> | <b>TITLE</b>                                           |
|-----------------|--------------------------------------------------------|
| A               | Scope of Work Agreement Letter & Comment/Response Memo |
| B               | Levels of Service Descriptions                         |
| C               | Traffic Count Data                                     |
| D               | Existing Synchro Worksheets                            |
| E               | Future Synchro Worksheets                              |
| F               | Crash Data                                             |

## Section 1 INTRODUCTION

### PURPOSE

This report presents the results of a traffic study in support of a Special Exception application that seeks to renovate the existing Herndon Elementary School as well as incorporate additional information to address comments received from Town of Herndon staff based on their review of the 1<sup>st</sup> submission Traffic Study. The renovation project would remove the school's existing trailer/modular educational space that currently serves existing student design capacity totals. The new permanent building area that is proposed as part of a comprehensive renovation project will bring the overall Herndon Elementary School up to applicable building code standards and educational requirements where in part it will not fully replace the student design capacity lost with the removal of existing trailer/modular space resulting. The proposed new student design capacity is proposed to be reduced and limited to 1,050 students. The renovation project also seeks to improve the site's on-site stacking and internal vehicle circulation by eliminating on-site vehicular conflicts between school buses and parent pick-up/drop-off activities. An assessment of the project's proposal to improve its internal vehicle circulation is the primary purpose of this traffic study.

### SITE LOCATION

As shown in Figure 1-1, the Herndon Elementary School site is generally located in the northeast quadrant of the Dranesville Road (Route 2492)/Fillmore Street (Route 2561) intersection with a street address of 630 Dranesville Road in the Town of Herndon, Virginia. The ±13.885-acre property is also identified as Parcel # 010-4 ((02)) 66A.

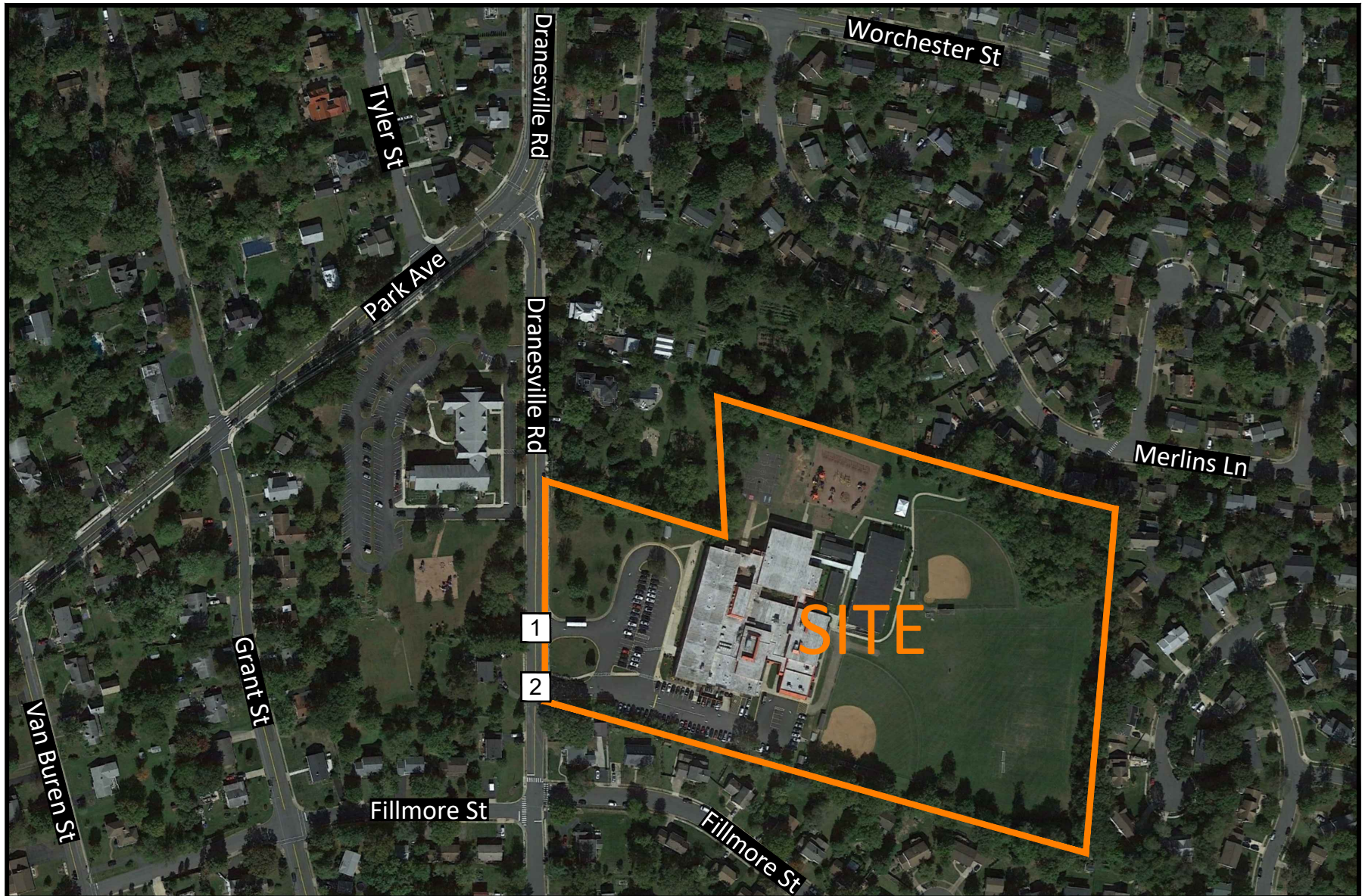
### EXISTING CONDITIONS

The existing Herndon Elementary School is comprised of the following:

- Fixed Building Area\* = ±85,165 square feet of gross floor area (GFA)
- Trailer/modular Area\* = ±15,264 GFA
- Total Existing Building Area\* = ±100,429 GFA
- Current Enrollment\* = ±805 students
- Existing Student Design Capacity = ±1,232 students (includes trailer/modular area)
- Regular School Hours: Monday – Friday, 9:20 AM – 4:05 PM
- Office Hours: Monday – Friday, 8:00 AM – 4:30 PM

*\* Subsequent to the traffic study scoping meeting and 1st submission traffic study, the Application required minor updates to the presented floor areas and current student enrollment based on new project information and refinements. The current student enrollment provided in this traffic study specifically correlates to the school enrollment on the day that traffic counts and field observations were collected on Wednesday, February 01, 2023.*





**Figure 1-1**  
Site Location and Study Intersections



NORTH

Herndon Elementary School  
Town of Herndon, Virginia



# Study Intersection

2

Existing Site Access: As shown on Figure 1-2, access is currently provided by two (2) existing driveways on Dranesville Road. The northern driveway serves as an egress only for school buses and limited school staff. The nearby southern driveway serves both ingress and egress traffic movements and serves as the sole driveway for all entering school buses, staff, and student pick-up/drop-off operations. Egress movements at the southern site driveway includes all user types except for school buses.

## PROPOSED CONDITIONS

As stated previously, the renovation project proposes to remove the school's existing trailer/modular educational space that currently serves existing student design capacity totals. The new permanent building area that is proposed as part of a comprehensive renovation project will bring the overall Herndon Elementary School up to applicable building code standards and educational requirements where in part it will not fully replace the student design capacity lost with the removal of existing trailer/modular space resulting. The proposed new student design capacity is proposed to be reduced and limited to 1,050 students.

The proposed renovation project ("the Project") will result in the following development program:

- Existing Fixed Building Area\* = ±85,165 GFA
- Proposed New Building Area\* = ±44,039 GFA
- Total Proposed Building Area \* = ±129,204 GFA [or ±28,775 more GFA than the total existing building area (fixed + modular)]
- Proposed Student Design Capacity = ±1,050 students (or ±182 fewer students than the existing design capacity)

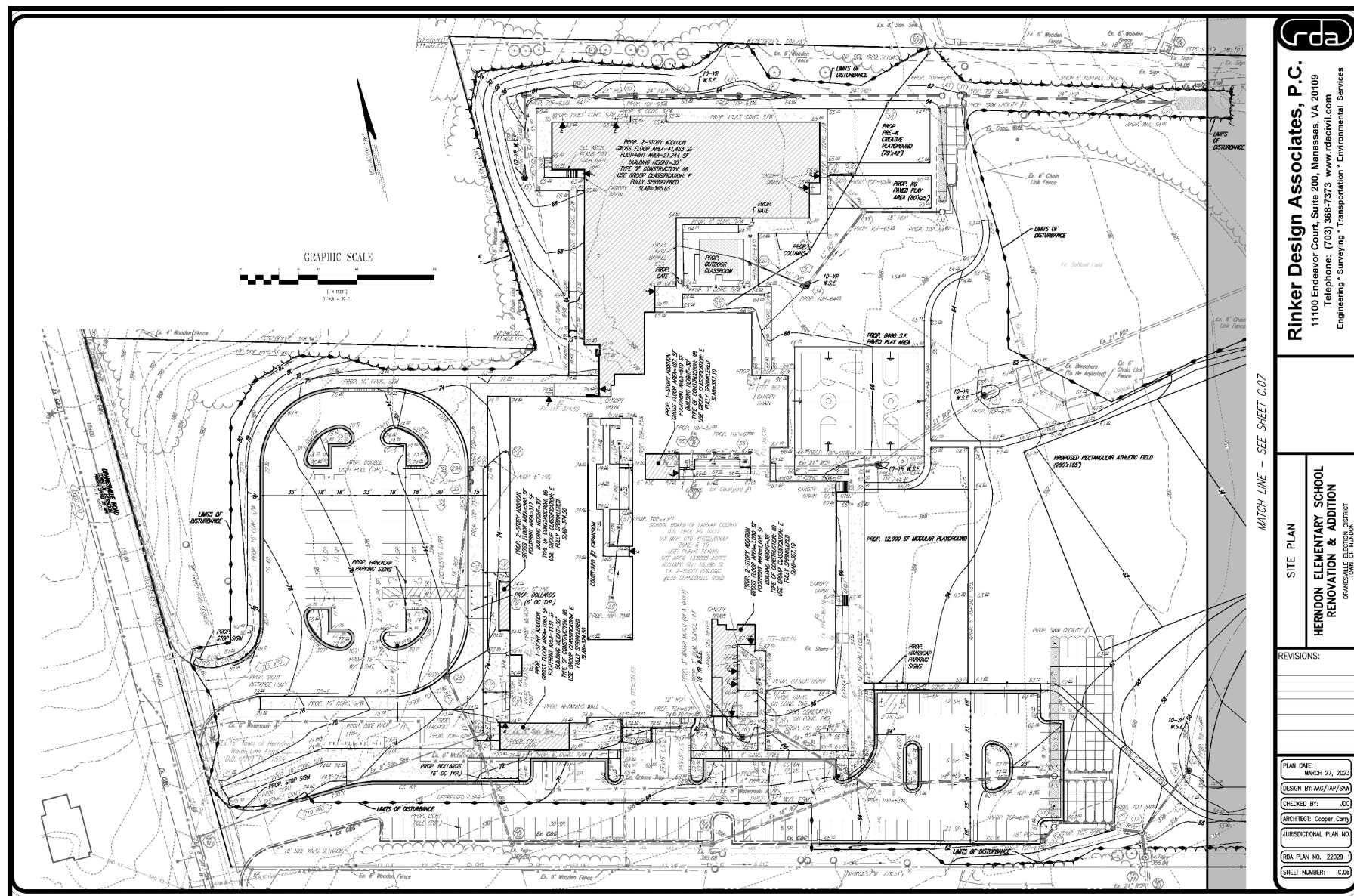
*\* Subsequent to the traffic study scoping meeting and 1<sup>st</sup> submission of the traffic study, the Application required minor updates to the presented floor areas based on new project information and refinements.*

Proposed Site Access: As shown on Figure 1-3, the site would continue to be served by two (2) separate driveways on Dranesville Road at the same locations that exist today. However, the internal site layout will be modified to meet FCPS' current standards by physically separating the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users. To improve on-site vehicle queuing (or stacking), the drop-off/pick-up area will be relocated to the front of the school with an enhanced and longer queueing area. Pedestrian circulation will also be enhanced by removing the key internal vehicular/pedestrian conflicts that exist today between pedestrians and school buses turning internally into the school bus drop-off-/pick-up zone.





Herndon Elementary School  
Town of Herndon, Virginia



**Figure 1-3**  
Proposed Conditions Plan (Reduction)



Herndon Elementary School  
Town of Herndon, Virginia



## SCOPING MEETING

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 August 2022 (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 traffic study is required by the Town of Herndon in order to assess the impacts, if any, associated with the renovation project. 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 on January 20, 2023 to identify the study scope and agree on certain specific study parameters. A copy of the scoping letter is included in Appendix A. This traffic study incorporates additional information to address comments received from Town of Herndon staff and subsequent conversations. Appendix A includes responses to each of the Town's comments.

## 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 that was limited to the Project's existing site driveways given the proposed student design capacity would be reduced when compared to existing conditions.

## STUDY OBJECTIVES

The primary objectives of the traffic study are to:

- Evaluate the school's existing weekday AM and weekday PM peak hours for year 2023.
- Evaluate future conditions based solely on reassigning the existing measured traffic to the proposed circulation layout.
- Summarize the proposed access layout improvements as compared to the existing condition.
- Identify development-related traffic impacts (if any).
- Evaluate the existing site driveways against VDOT's minimum spacing requirements based on VDOT's Road Design Manual.
- Discuss relative impacts to off-site intersections located outside of the study area intersections.
- Document any available crash data that might be available via VDOT and/or the Town of Herndon at the study intersections.

- Recommend improvements to mitigate potential adverse effects which might be caused by the Project.

Sources of data for this analysis included traffic counts conducted by Wells + Associates; the Institute of Transportation Engineers (ITE); Town of Herndon; VDOT; Fairfax County Public Schools; Rinker Design Associates, PC; Cooper Carry; the Highway Capacity Manual 2000; Synchro version 11; and the files and libraries of Wells + Associates.

The traffic study analysis 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 Project's existing site driveways during the school's weekday AM and weekday PM peak periods.
5. Calculated existing 2023 levels of service and vehicle queues at each site driveway during typical weekday peak hours.
6. Reassigned the existing site driveway traffic based on the proposed internal layout improvements.
7. Calculated peak hour total future levels of service and vehicle queues for each site driveway based on the proposed internal layout and the reassigned existing traffic.
8. For comparison purposes:
  - a. Estimated the number of weekday peak hour trips that would be generated by the school's existing student design capacity versus proposed student design capacity based on standard Institute of Transportation Engineers (ITE) 11<sup>th</sup> edition, Trip Generation Manual rates and/or equations.
  - b. Estimated the number of weekday peak hour trips that would be generated by the school's current student enrollment based on standard ITE 11<sup>th</sup> edition, Trip Generation Manual rates and/or equations versus the field measured trip generation.
9. Identified traffic improvements that would be realized by the proposed site layout enhancements.



## STUDY METHODOLOGY

Synchro software (version 11) was used to evaluate levels of service at the study intersections during the school's 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 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 11. Level of service descriptions are included in Appendix B.

## Section 2 BACKGROUND INFORMATION

### ROAD NETWORK

Dranesville Road (Route 2492). In the vicinity of the site, Dranesville Road is a north-south, two-lane roadway classified as a “local” street with a posted speed limit of 25 miles per hour (mph). “No Parking” signs are posted on both sides of Dranesville Road within the immediate vicinity of the school driveways and between the school driveways and Fillmore Street. On-street parking is permitted on the east side of Dranesville Road approximately 50 feet north of the site’s north school driveway, as measured from its northern edge line. On-street parking is also permitted on the west side of Dranesville Road approximately 220 feet north of the site’s northern school driveway, as measured from its northern edge line. Dranesville Road intersects Fillmore Street (Route 2561) to the south at a four-legged, ALL-WAY STOP controlled intersection. Dranesville Road intersects Park Avenue (Route 228) to the north at a T-intersection where Dranesville Road’s northbound approach is the sole STOP controlled approach. There is a single-family detached home on the opposite side of the school’s driveways that is served by two (2) curb cuts.

Fillmore Street (Route 2561). In the vicinity of the site, Fillmore Street is an east-west, two-lane roadway classified as a “local” street that serves a single-family detached neighborhood. A speed limit sign is not posted but the assumed speed limit is 25 mph or less given the character of the residential neighborhood. Parking is typically permitted along both sides of the street. As discussed previously, Dranesville Road intersects Fillmore Street (Route 2561) at a four-legged, ALL-WAY STOP controlled intersection. Fillmore Street’s eastern and western traffic legs have a minor off-set to each other at their intersection with Dranesville Road.

### PEDESTRIAN FACILITIES

As shown on Figure 2-1, pedestrian facilities serving the area include approximately four (4) foot wide sidewalks along the east and west sides of Dranesville Road within the immediate vicinity of the site. High visibility crosswalks are striped across each school driveway.

The nearby Dranesville Road/Fillmore Street intersection provides high visibility crosswalks across its north, east, and west traffic legs.

Fillmore Street provides sidewalks along both sides of the street east of the Dranesville Road/Fillmore Street intersection but only on the south side of Fillmore Street along the west side of the Dranesville Road/Fillmore Street intersection.

There are no mid-block crosswalks along Dranesville Road or Fillmore Street within the vicinity of the site. There are off-street pedestrian connections to/from the nearby residential neighborhoods to the north and east of the site.



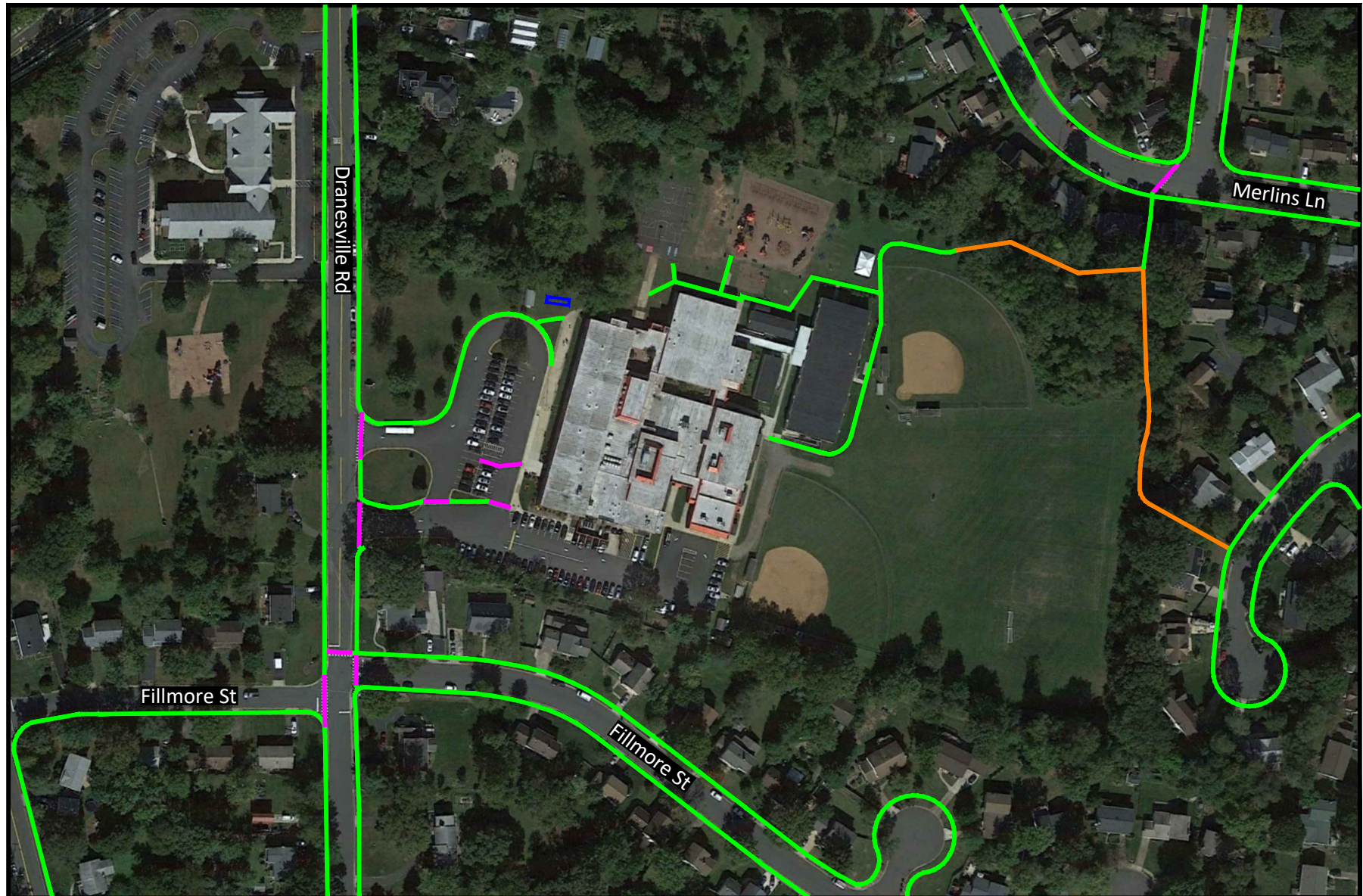


Figure 2-1  
Existing Pedestrian Facilities

- Bike Racks Location
- Concrete Sidewalk
- Asphalt Trail
- Marked Crosswalk



NORTH

Herndon Elementary School  
Town of Herndon, Virginia



## SCHOOL BUS UTILIZATION

According to FCPS, approximately 86 percent of their current student enrollment utilizes school buses to travel to/from school.

## TRIP GENERATION ASSESSMENT

The total site generated traffic for existing and future conditions at the Herndon Elementary School were estimated based on standard ITE 11<sup>th</sup> edition, Trip Generation Manual rates and/or equations using ITE Land Use Code 520 (Elementary School). ITE describes an “Elementary School” as follows:

*“An elementary school is a public school that typically serves students attending kindergarten through the fifth or sixth grade. An elementary school is usually centrally located in a residential community to facilitate student access. Bus service is commonly provided to students living beyond a specified distance from the school.”*

As shown on Table 2-1, trip generation estimates were based on the school’s current enrollment ( $\pm 805$  students\*), existing design capacity (1,232 students), and Proposed Design Capacity (1,050 students).

*\* Subsequent to the traffic study scoping meeting, the Application required minor updates to the presented floor areas and current student enrollment based on new project information and refinements. The current student enrollment provided in this traffic study specifically correlates to the school enrollment on the day that traffic counts and field observations were collected on Wednesday, February 01, 2023.*

For the purpose of this trip generation analysis, a comparison between the existing and proposed student capacity was evaluated. The proposal reduces the design capacity by 182 students which results in the following fewer trips according to ITE:

- 136 fewer AM peak hour trips (of the generator)
- 135 fewer AM peak hour trips (of the adjacent street)
- 82 fewer PM peak hour trips (of the generator)
- 413 fewer daily trips



Table 2-1  
Herndon Elementary School  
Site Trip Generation Summary (1)

| Scenario                                                                     | ITE Land Use      | Land Use Code | Amount    Units |          | Weekday          |            |            |                        |            |            |                  |            |            |              |
|------------------------------------------------------------------------------|-------------------|---------------|-----------------|----------|------------------|------------|------------|------------------------|------------|------------|------------------|------------|------------|--------------|
|                                                                              |                   |               |                 |          | AM Peak Hour     |            |            |                        |            |            | PM Peak Hour     |            |            |              |
|                                                                              |                   |               |                 |          | of the Generator |            |            | of the Adjacent Street |            |            | of the Generator |            |            | Daily Trips  |
| In                                                                           | Out               | Total         | In              | Out      | Total            | In         | Out        | Total                  | In         | Out        | Total            |            |            |              |
| Current Enrollment (Field)                                                   | Elementary School | Field (2)     | 805             | Students | 148              | 108        | 256        | 148                    | 108        | 256        | 62               | 113        | 175        | n/a          |
| Current Enrollment (ITE)                                                     | Elementary School | 520           | 805             | Students | 326<br>55%       | 278<br>61% | 604<br>58% | 322<br>54%             | 274<br>61% | 596<br>57% | 167<br>63%       | 196<br>42% | 363<br>52% | 1,828<br>n/a |
| Existing Design Capacity<br>(incl. modulars & 2-duplexes)                    | Elementary School | 520           | 1,232           | Students | 499              | 425        | 924        | 492                    | 420        | 912        | 255              | 300        | 555        | 2,797        |
| Proposed Design Capacity                                                     | Elementary School | 520           | 1,050           | Students | 426              | 362        | 788        | 420                    | 357        | 777        | 218              | 255        | 473        | 2,384        |
| Difference (Proposed Design Capacity minus <u>Current Enrollment</u> )       |                   |               | 245             | Students | 100              | 84         | 184        | 98                     | 83         | 181        | 51               | 59         | 110        | 556          |
| Difference (Proposed Design Capacity minus <u>Existing Design Capacity</u> ) |                   |               | (182)           | Students | (73)             | (63)       | (136)      | (72)                   | (63)       | (135)      | (37)             | (45)       | (82)       | (413)        |

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition.

(2) Field traffic counts were collected on Wednesday, February 01, 2023.

## Section 3 ACCESS AND CIRCULATION ASSESSMENT

### CURRENT OPERATIONS

As discussed previously, site access is currently provided by two (2) existing driveways on Dranesville Road. The northern driveway serves as an egress only for school buses and limited school staff. The nearby southern driveway serves both ingress and egress traffic movements and serves as the sole entrance for all entering school buses, staff, and student pick-up/drop-off operations. Egress movements at the southern driveway includes all user types except for school buses. The purpose of this section is to focus on the southern site driveway while understanding multiple means of drop-off and pick-up activities occur surrounding the site on adjacent streets.

### FIELD OBSERVATIONS ON WEDNESDAY, FEBRUARY 1, 2023

**Traffic Safety Attendant.** The Herndon Elementary School utilized a traffic safety attendant at its southern site driveway on Dranesville Road to control vehicular and pedestrian movements during the school's key AM and PM student drop-off/pick-up periods.

**AM Peak Period Operations.** The key traffic impact period when students arrive for their 9:20 AM arrival (late) bell is generally limited and isolated to an approximate 15-minute period between 9:00 AM and 9:15 AM.

Prior to 9:00 AM, vehicles dropping off students have already queued on-site at the internal drop-off area at the back of the school and school buses continue to arrive.

At 9:00 AM, or just after, is when the on-site drop-off vehicle queue begins to spill back and approach Dranesville Road. The 9:00 AM period is also when a traffic safety attendant takes control of the vehicular and pedestrian movements at the site's southern driveway.

Between 9:00 AM and 9:15 AM, the following key activities and constraints were observed based on the current access and circulation scheme:

- 1) Upon school buses entering the site, school buses must yield their left-turn movements to internal pedestrian traffic that must walk cross an internal drive aisle that connects the student pick-up/drop-off area from the school bus drop-off/pick-up zone.
- 2) When the entering traffic movement at the site's southern driveway is blocked by the drop-off vehicle queue, all arriving school buses must now enter the site using its single egress lane.
- 3) Upon vehicles dropping off students at the back of the school site, those vehicles are held from leaving the site to assure school buses can still efficiently enter the site using the previously noted egress lane. This creates and sustains a growing entering vehicle queue



that spills into and along Dranesville Road. The primary vehicle queue on Dranesville Road was observed to occur along its southbound approach to the site driveway.

- 4) As a result of the off-site vehicle queue along southbound Dranesville Road, arriving school buses must straddle the double yellow line along Dranesville Road to by-pass the vehicle queue.
- 5) The first drop-off vehicles are finally permitted to leave the site by approximately 9:09 AM where they are predominately directed to exit the site as a right-out only on Dranesville Road.
- 6) Within approximately five (5) minutes of the drop-off vehicles having been released to leave the site, the entering drop-off vehicle queue begins to reduce and subsequent arriving school buses begin to position themselves behind the entering vehicle queue.
- 7) At approximately 9:16 AM, or the end of the key 15-minute traffic period, the traffic safety attendant leaves their post and the entering vehicle queue has subsided and no longer impacts Dranesville Road.

**PM Peak Period Operations.** The key traffic impact period when students leave at their 4:05 PM dismissal bell is generally limited and isolated to an approximate 22-minute period between 3:50 PM and 4:12 PM.

Prior to 3:50 PM, vehicles arriving to pick-up students have already queued on-site at the internal drop-off area at the back of the school and school buses continue to arrive.

At 4:03 PM is approximately when the traffic safety attendant returns to take full control of the vehicular and pedestrian movements at the site's southern driveway on Dranesville Road.

Between 3:50 PM and 4:12 PM, the following key activities and constraints were observed based on the current access and circulation scheme:

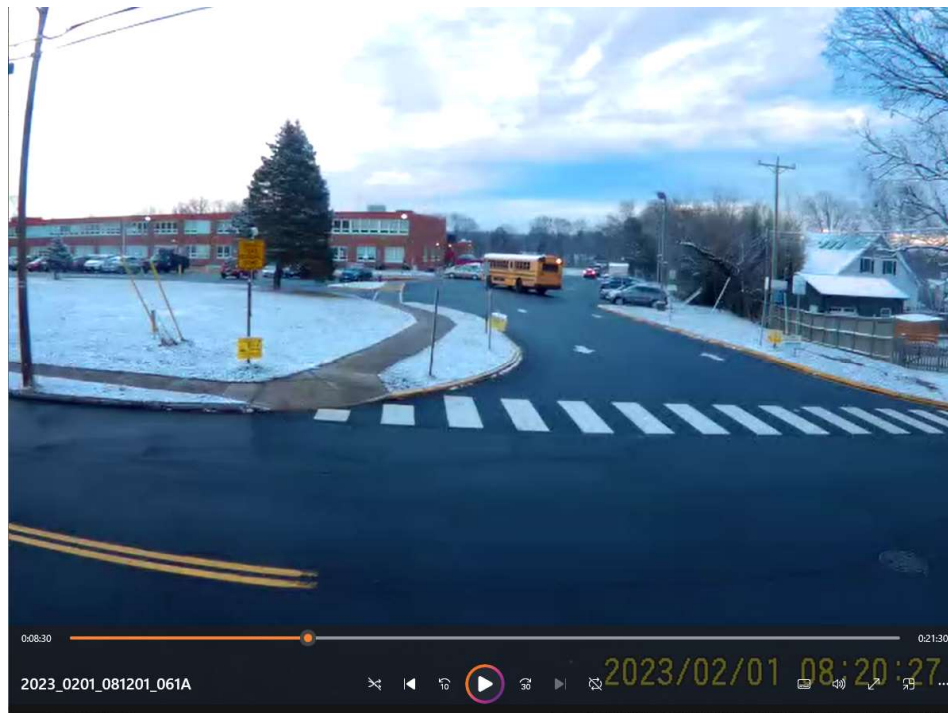
- 1) Similar to the morning drop-off period, upon school buses entering the site, school buses must yield their left-turn movements to internal pedestrian traffic that must walk cross an internal drive aisle that connects the student pick-up/drop-off area from the school bus drop-off/pick-up zone.
- 2) When the entering traffic movement at the site's southern driveway is blocked by the pick-up vehicle queue, all arriving school buses must now enter the site using its single egress lane.
- 3) Upon vehicles picking up students at the back of the school site, those vehicles are held and released from leaving the site pending an internal attendant's visibility of a school bus trying to enter the school site using the egress lane. Holding these exiting vehicles continues to create and sustain a growing entering vehicle queue the spills back and beyond onto Dranesville Road. The primary vehicle queue on Dranesville Road continues to be designated to occur on its southbound direction.

- 4) As a result of the off-site vehicle queue along southbound Dranesville Road, arriving school buses must again straddle the double yellow line along Dranesville Road to by-pass the vehicle queue.
- 5) A school bus was observed to drop-off students from the Dranesville Road southbound travel lane immediately north of the site's southern driveway on Dranesville Road.
- 6) The first pick-up vehicles were observed leaving the site by approximately 4:07 PM where they are again predominately directed to exit the site as a right-out only on Dranesville Road.
- 7) Within approximately five (5) minutes of the drop-off vehicles having been released to leave the site, exiting vehicles were observed held to allow multiple schools buses to enter at the same time the entering drop-off vehicle queue starts to reduce.
- 8) At approximately 4:12 PM, or the end of the key 22-minute traffic period, the traffic safety attendant leaves their post and the entering vehicle queue has subsided and no longer impacts Dranesville Road.

**AM and PM Peak Period Field Pictures.** Video traffic count equipment was utilized to conduct peak period vehicular and pedestrian counts. Key screenshots from the video footage was captured and shared below to supplement and provide a visual representation of the activities and constraints described above.

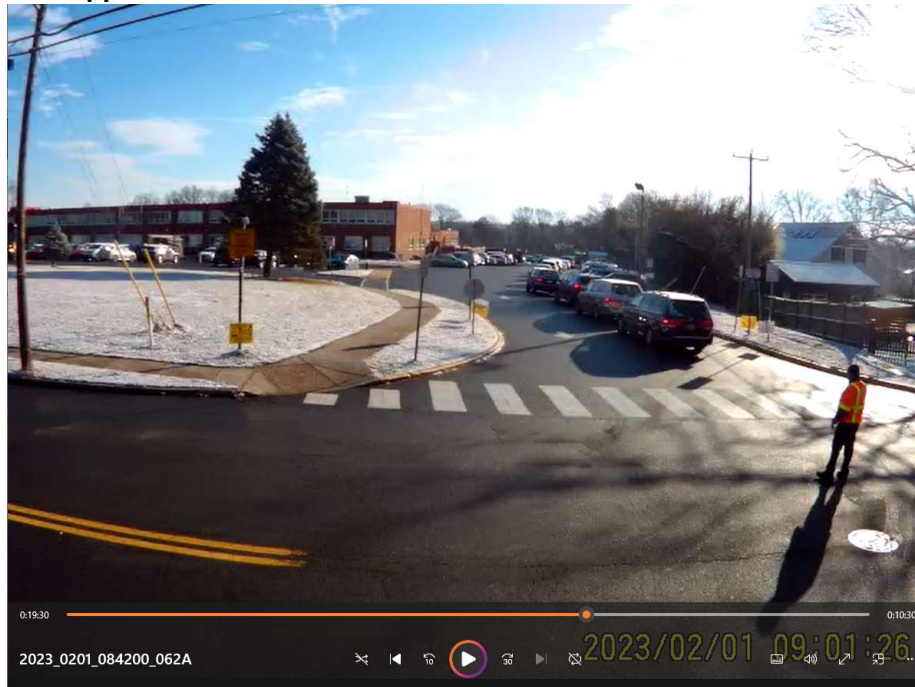
#### **AM PEAK PERIOD PICTURES**

**8:20 AM – The first school bus arrives.**

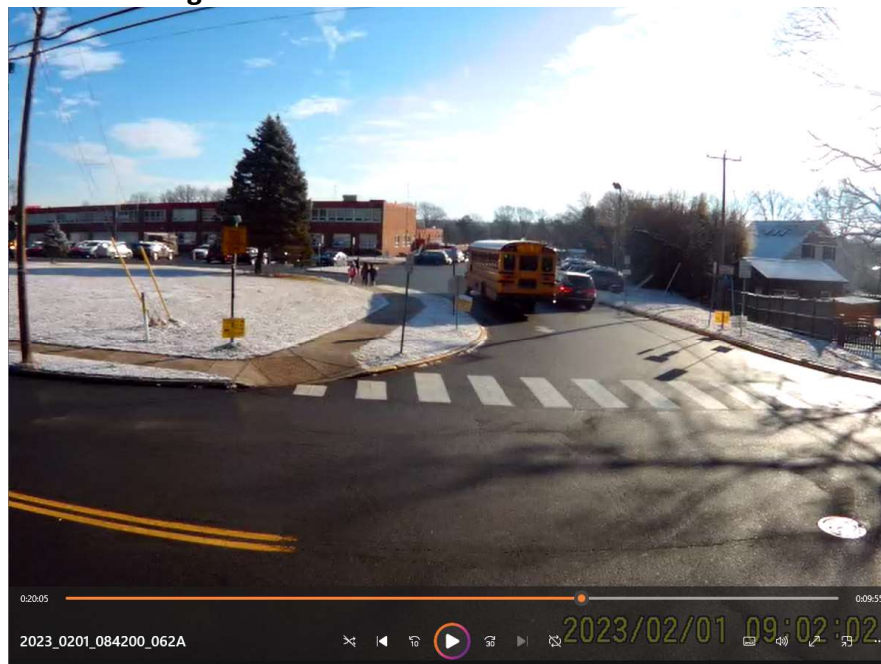




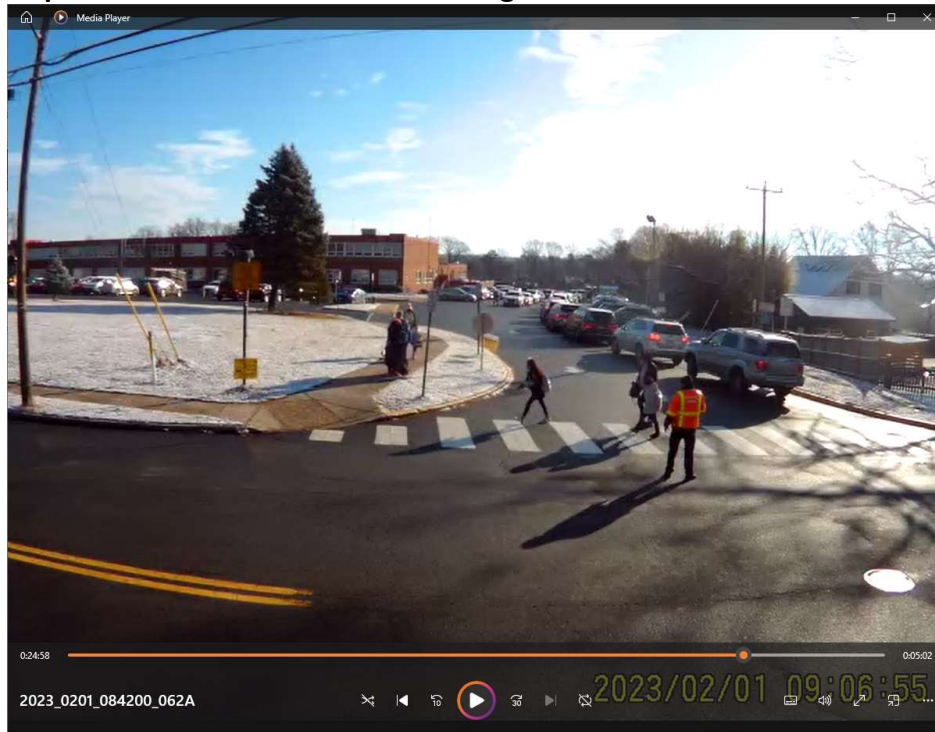
**9:01 AM – Traffic safety attendant begins to monitor and control vehicular and pedestrian traffic at the site’s southern driveway. On-site vehicle queues begin to approach Dranesville Road.**



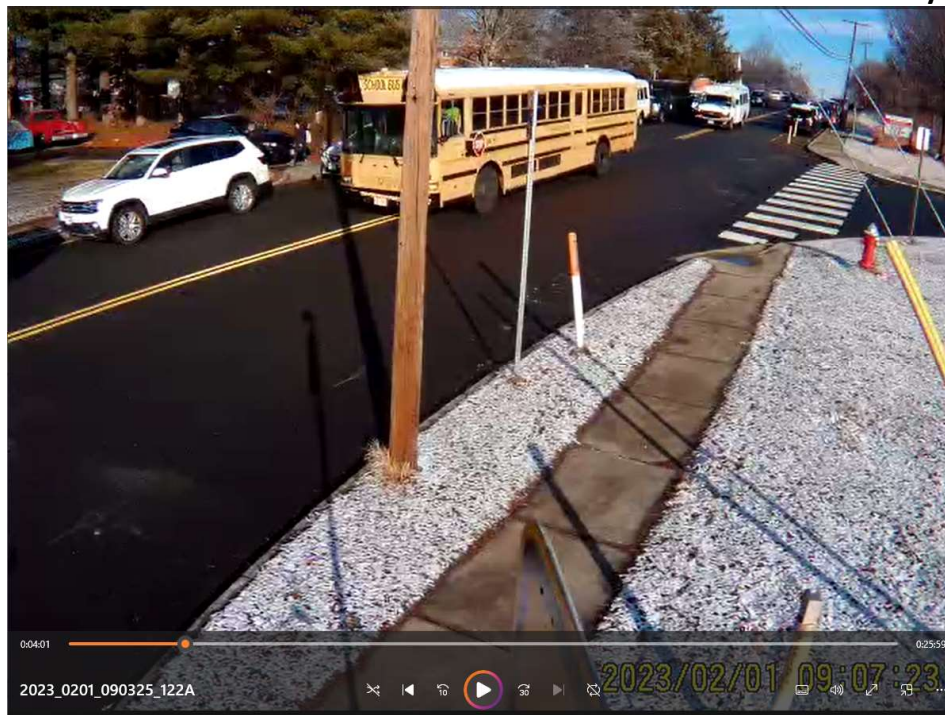
**9:02 AM – As a result of morning drop-off queues approaching Dranesville Road, arriving school buses must now use the school’s egress lane at the school’s southern site driveway to enter the site. At this time, drop-off vehicles must remain on-site so they do not impede or prevent school buses from entering the school site.**



**9:06 AM – Vehicles that have dropped off students are being held internal to the site by an on-site attendant to assure egress vehicles to not impede or prevent school buses from entering the site.**

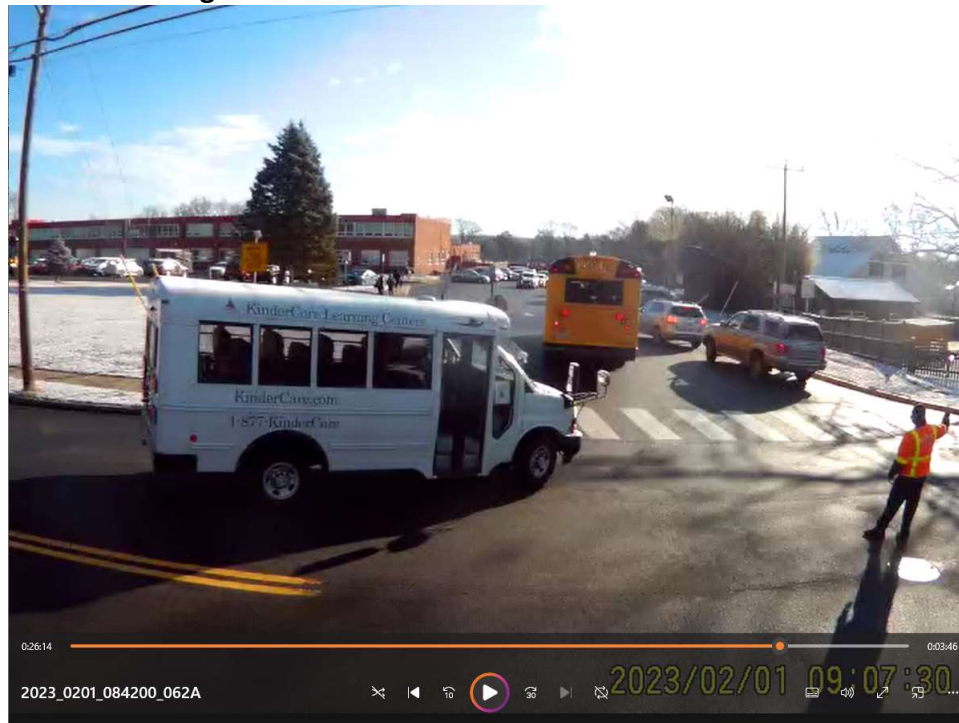


**9:07 AM – Arriving school bus and shuttle bus must straddle the double yellow line along southbound Dranesville Road to by-pass vehicle queue as they pass the site's northern bus exit to enter at the site's southern driveway.**

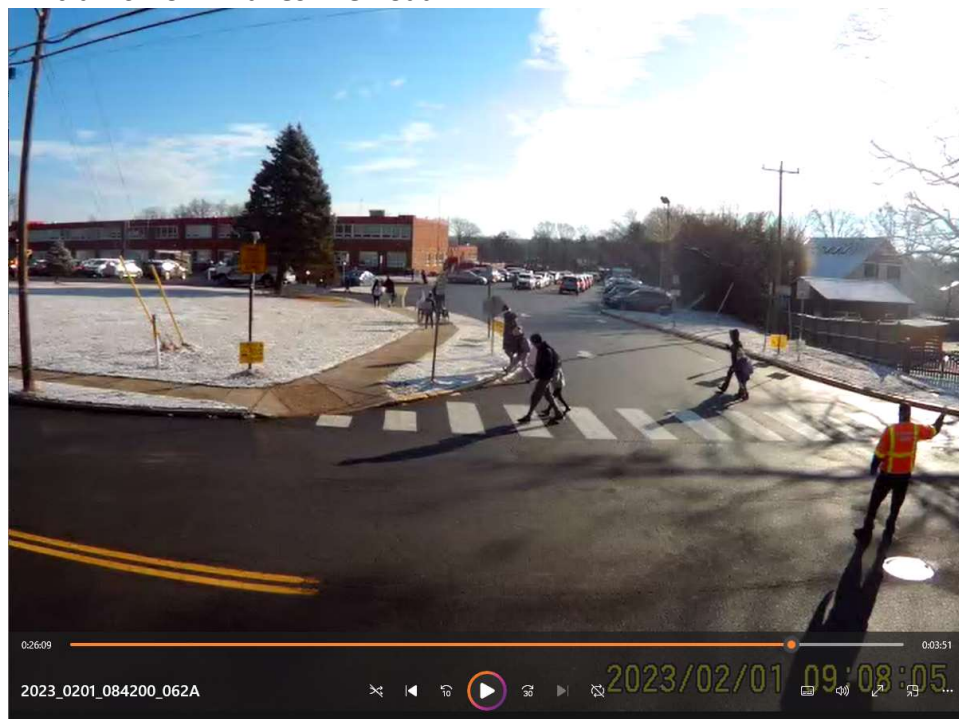




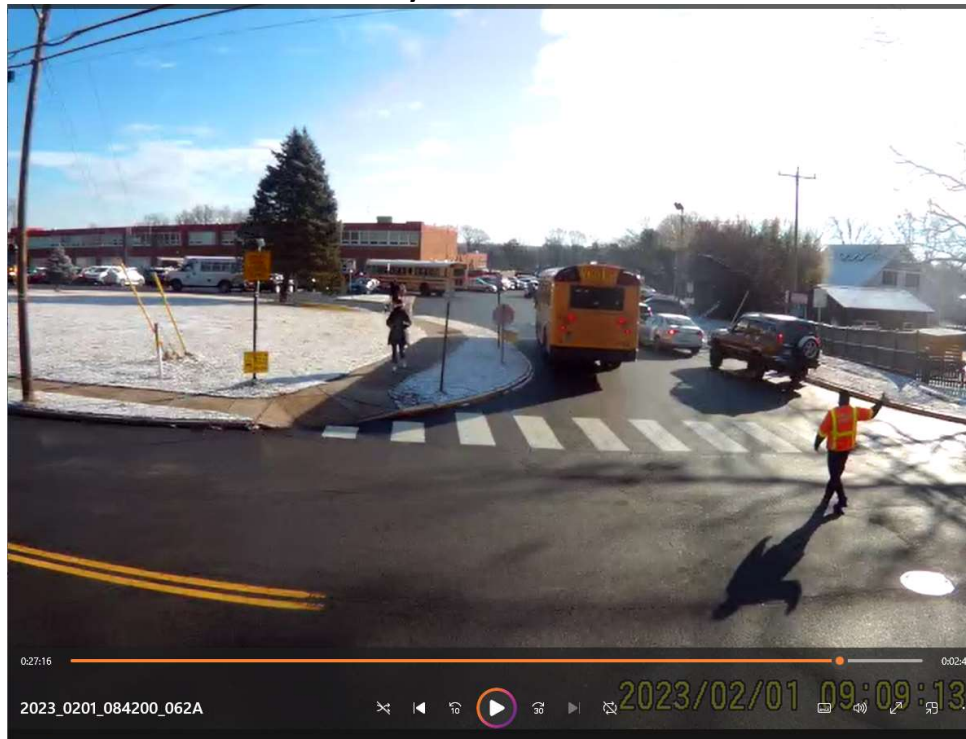
**9:07 AM – School buses/KinderCare shuttle continue to arrive using the site’s vehicular egress lane.**



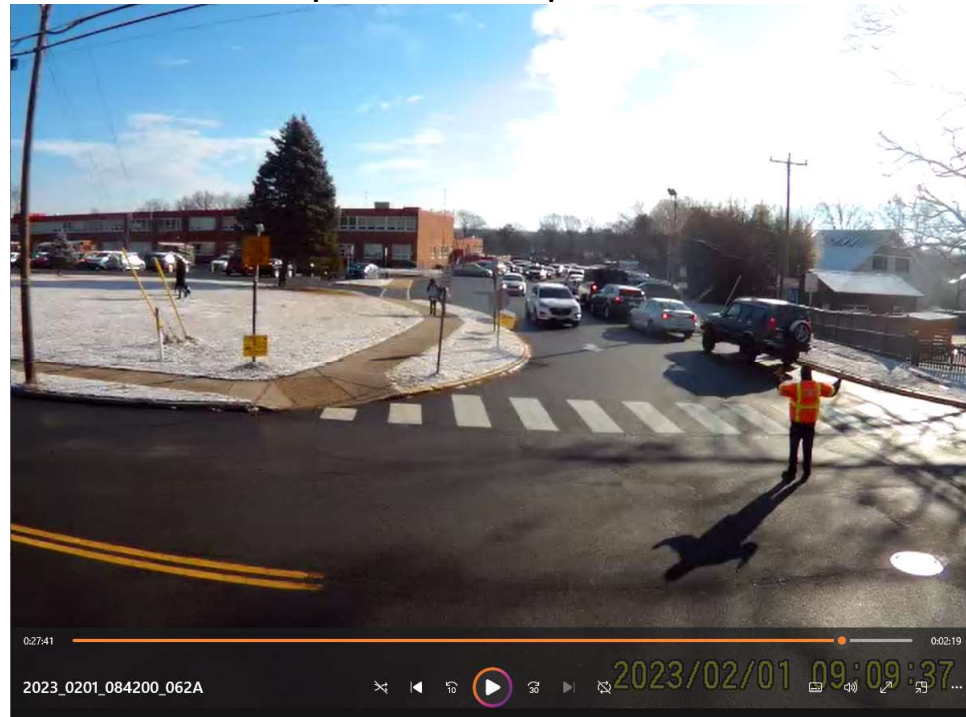
**9:08 AM – The ingress queue temporarily shortens as drop-offs continue and the traffic safety attendant supports pedestrian crossings and holds entering traffic from Dranesville Road.**



**9:09 AM – School buses continue to arrive and an on-site vehicle attendant stops the drop-off vehicles from leaving and blocking the egress lane to assure school buses can efficiently enter the site.**

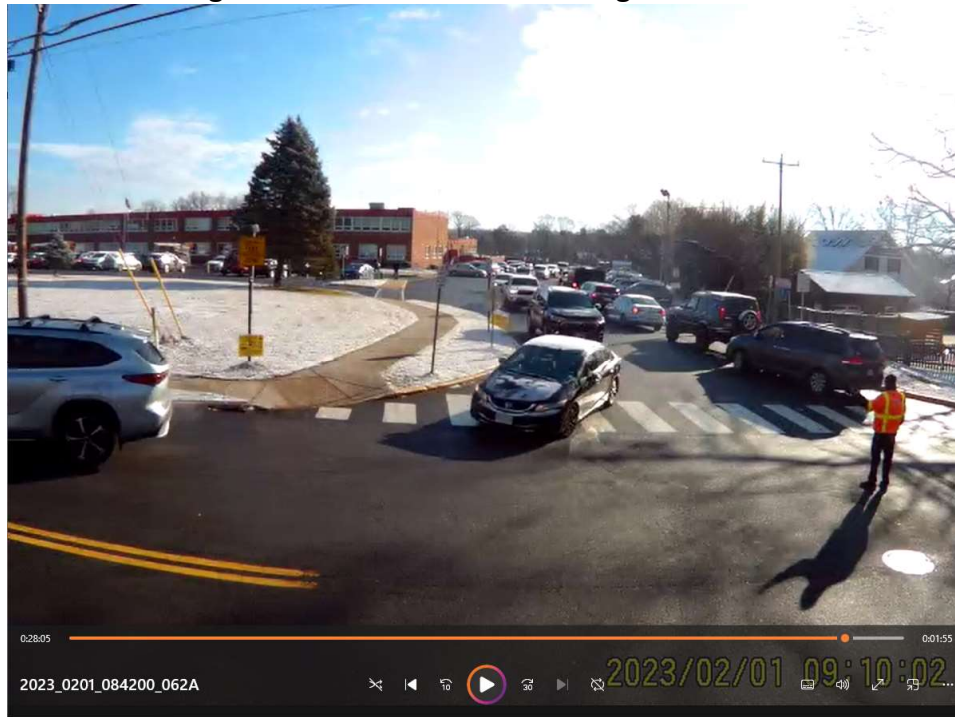


**9:09 AM – First drop-off vehicles are permitted to leave the site.**

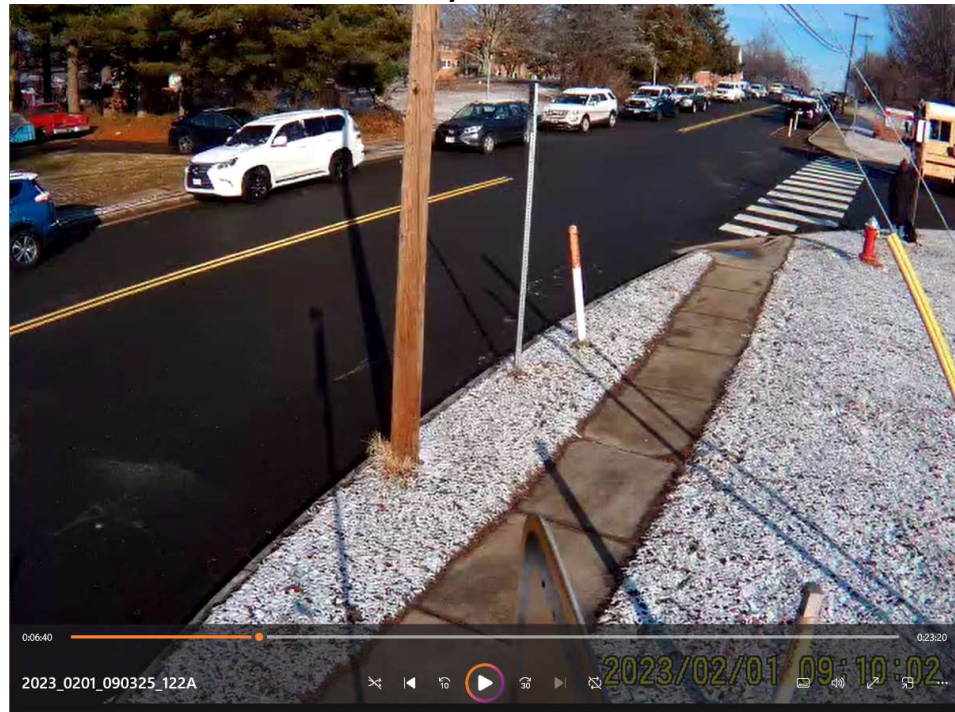




**9:10 AM – Egress vehicles exit the site as right-turns out.**



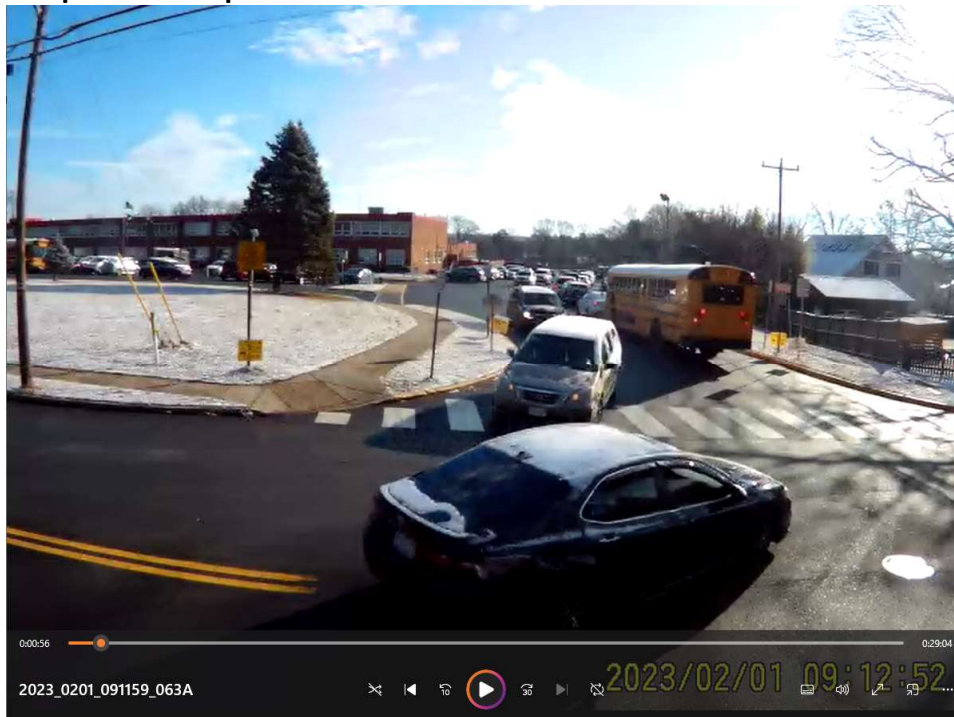
**9:10 AM – Vehicle queue along southbound Dranesville Road approaching the schools southern site driveway.**



**9:10 AM – Vehicle queues along northbound Dranesville Road approaching the schools southern site driveway remained generally minimal when compared to southbound queues.**

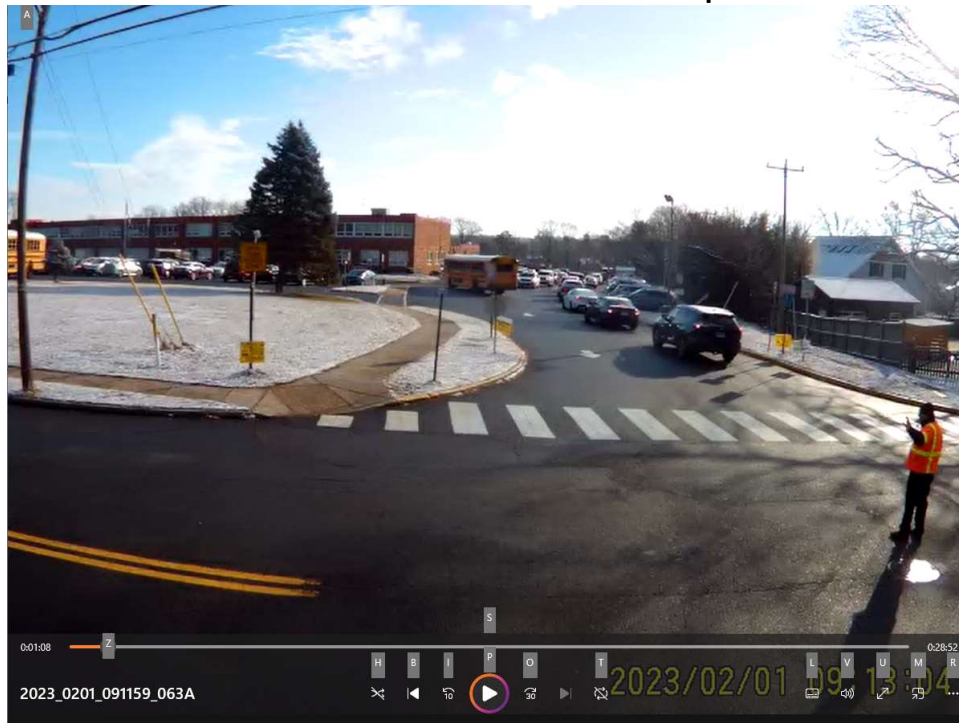


**9:12 AM – School bus enters the site and becomes part of entering vehicle queue as drop-off vehicles exit.**

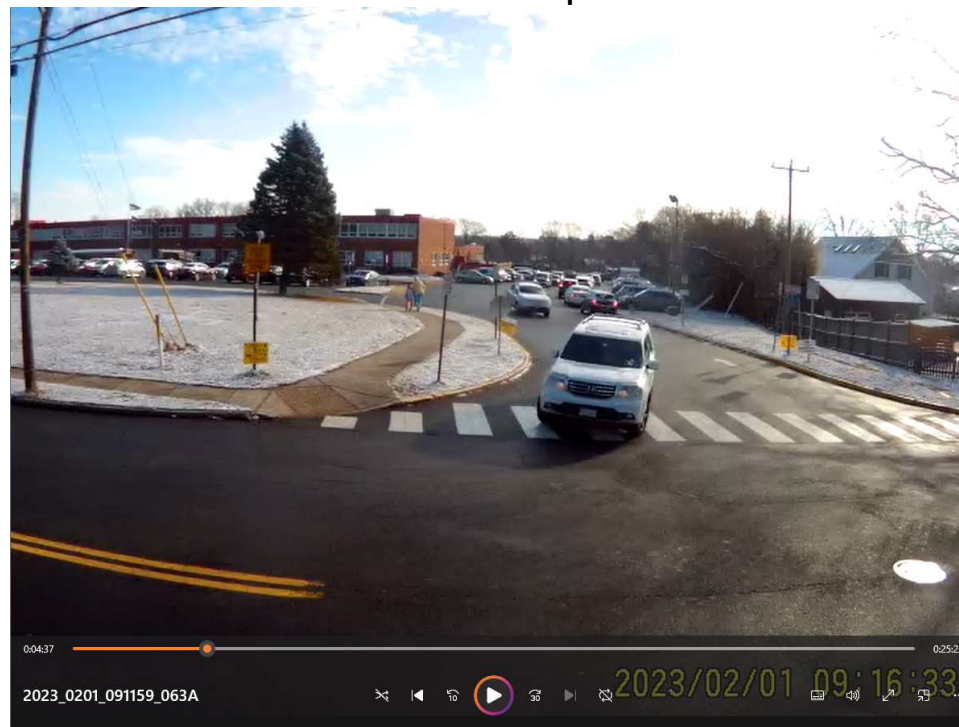




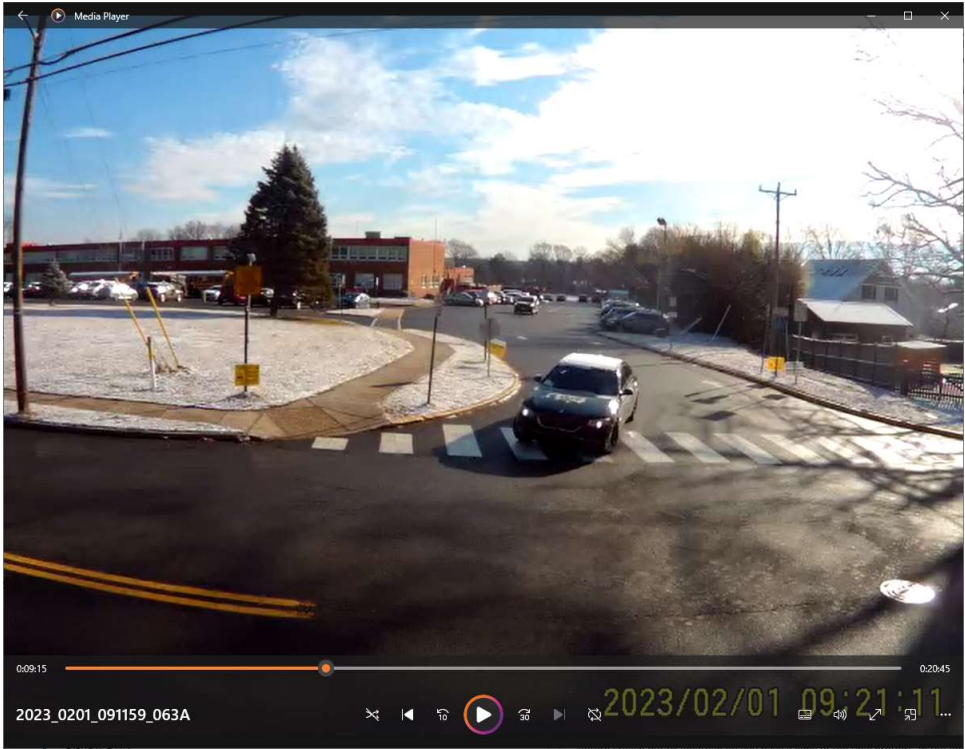
**9:13 AM – Vehicles that have dropped off students are held again from leaving to allow school buses to enter the school bus drop-off area.**



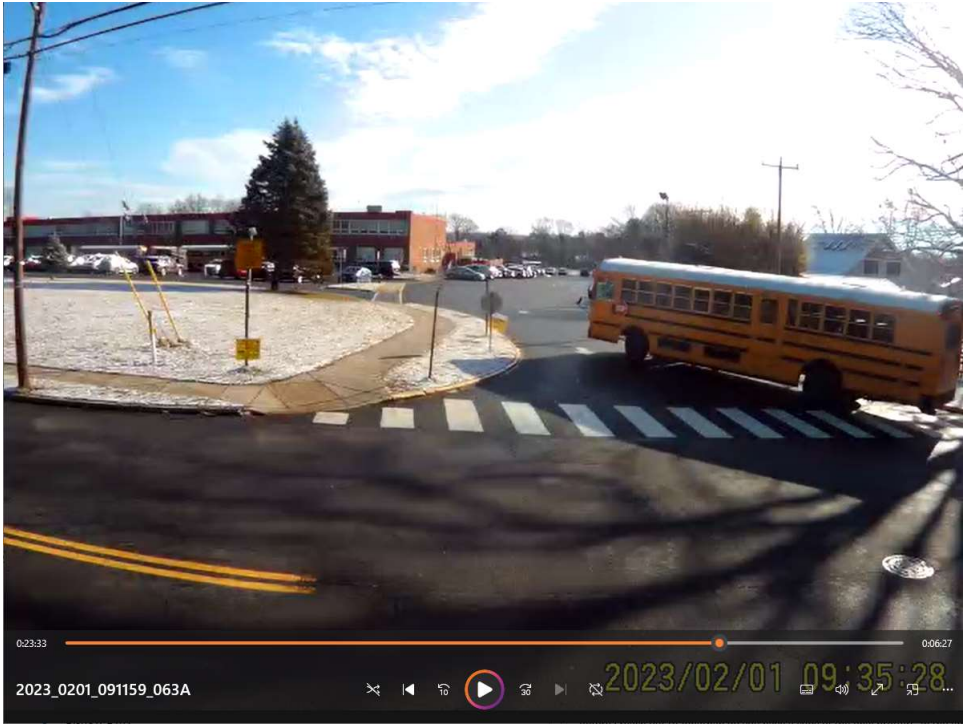
**9:16 AM – Ingress vehicle queue begins to recede from backing up to Dranesville Road. Traffic attendant departs.**



9:21 AM – Last number of drop-off vehicles leave the site.



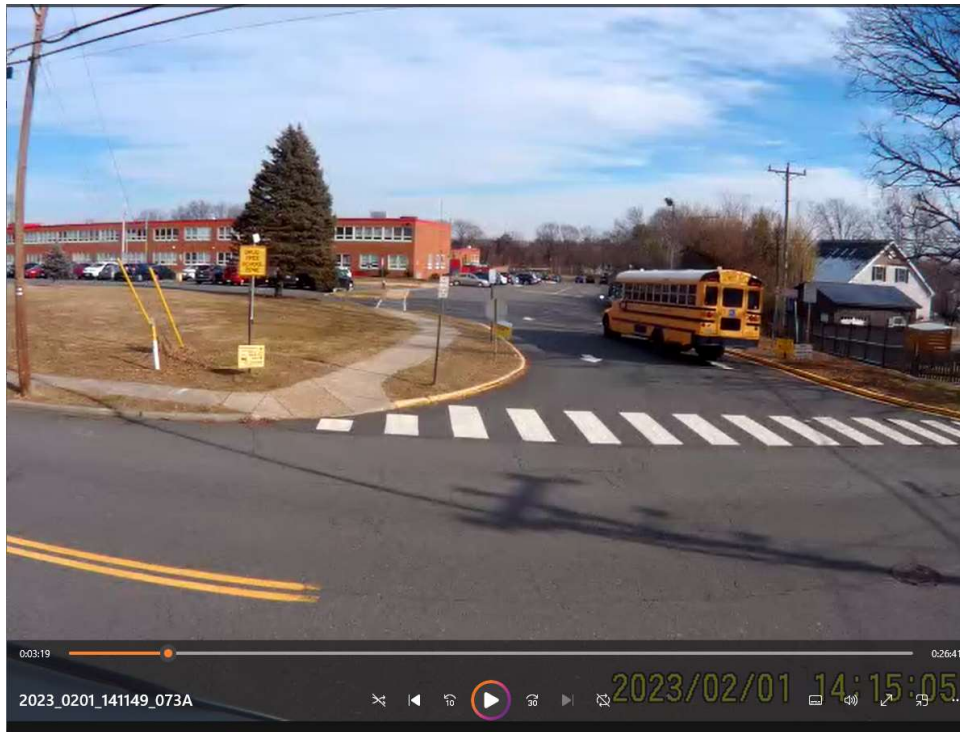
9:35 AM – Final school bus arrives.



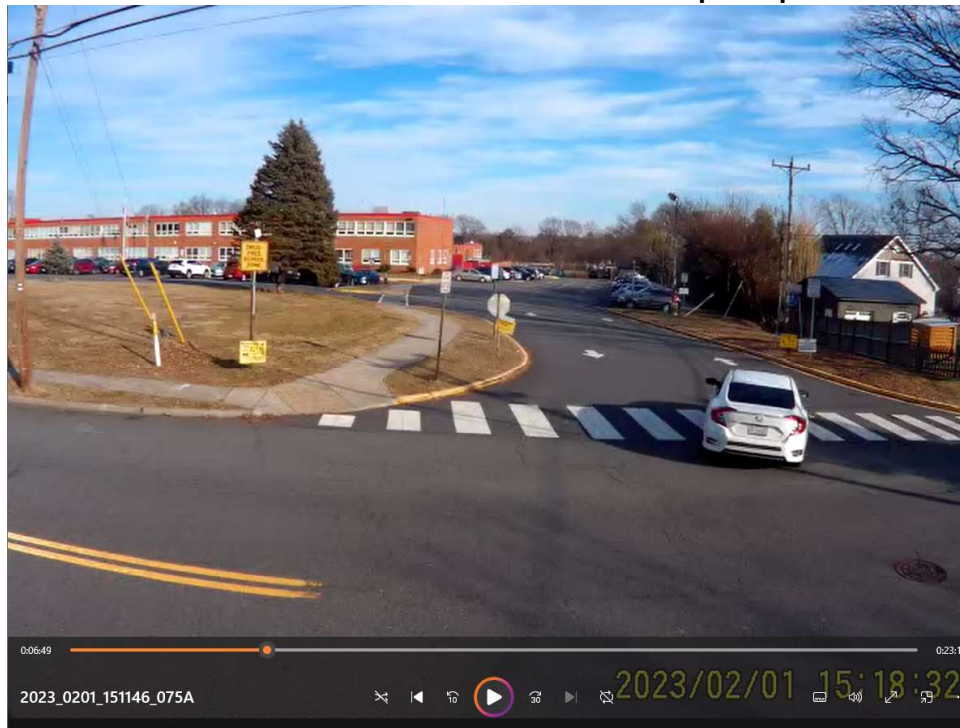


**PM PEAK PERIOD PICTURES**

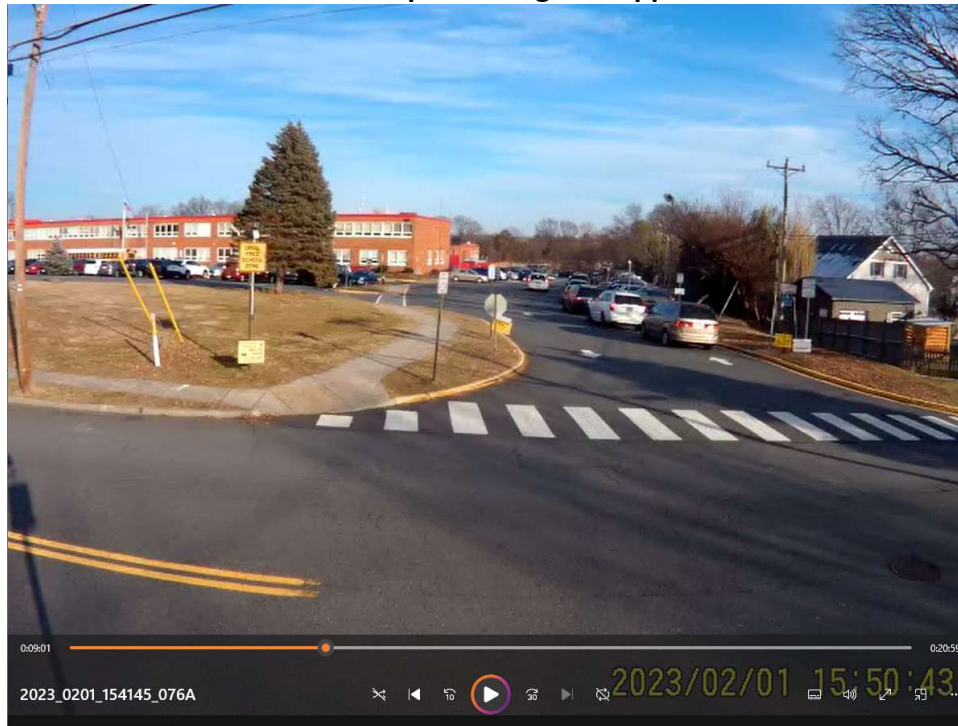
**2:15 PM – The first observed school bus arrives.**



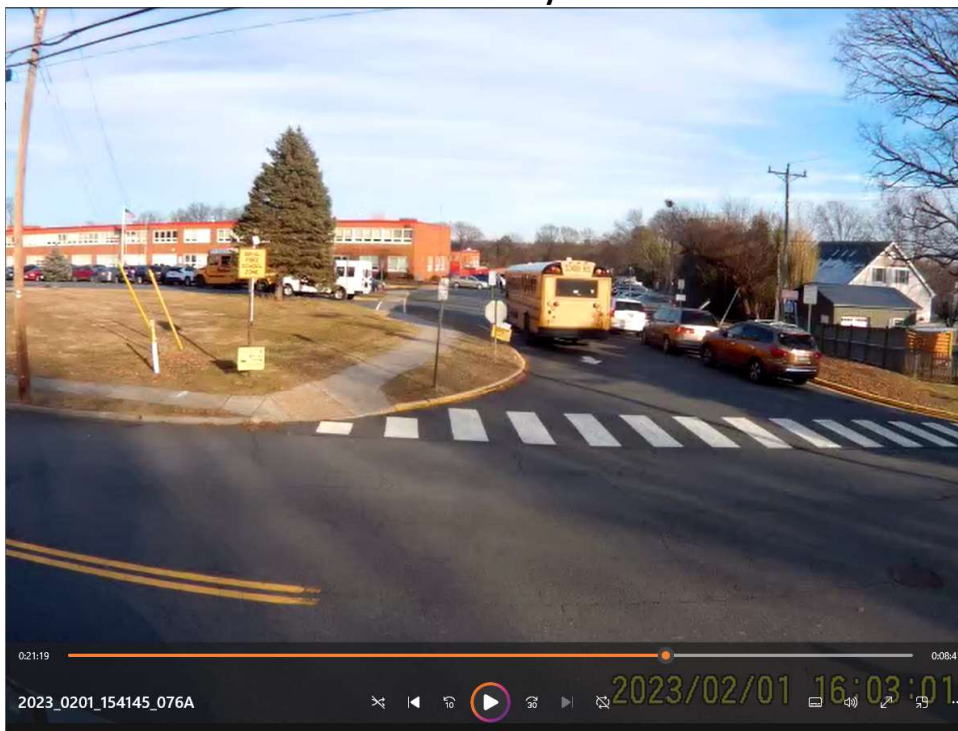
**3:18 PM – The first observed vehicle for student pick-up arrives.**



**3:50 PM – On-site vehicle queues begin to approach Dranesville Road.**

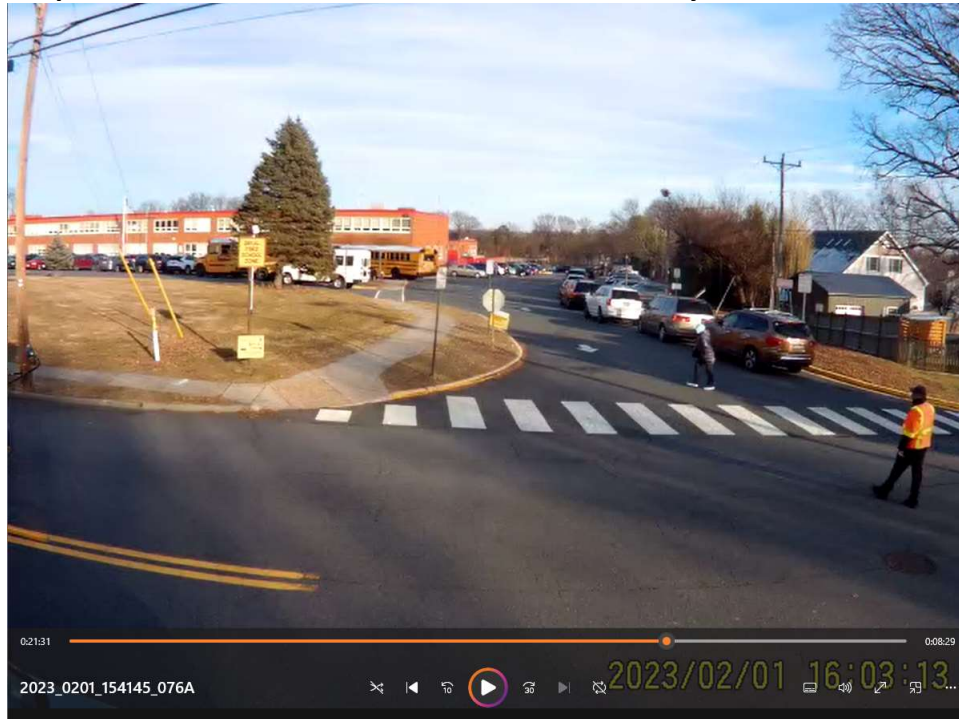


**4:03 PM – As a result of on-site afternoon pick-off queues approaching Dranesville Road, arriving school buses must now use the school's egress lane at the school's southern site driveway to enter the site.**

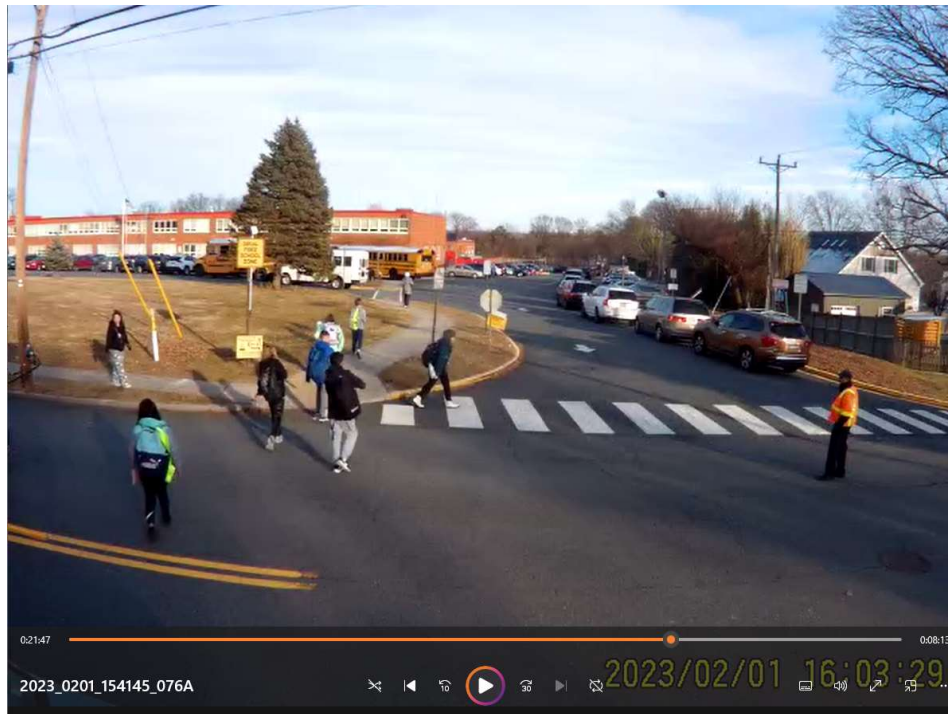




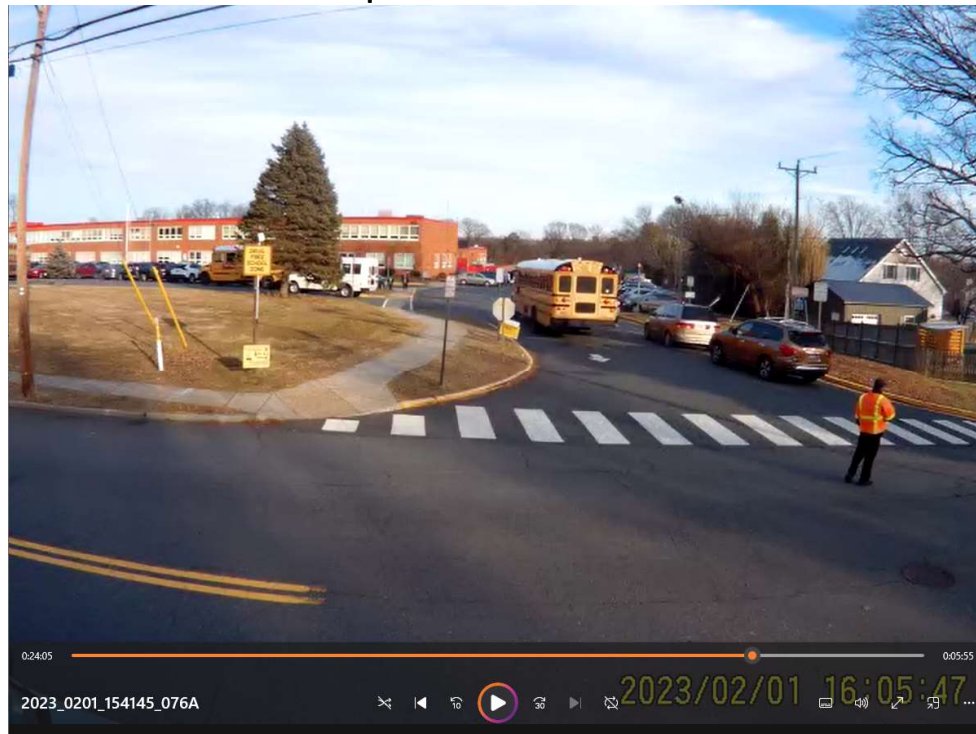
**4:03 PM – Traffic attendant begins to monitor and control vehicular and pedestrian traffic at the site’s southern driveway.**



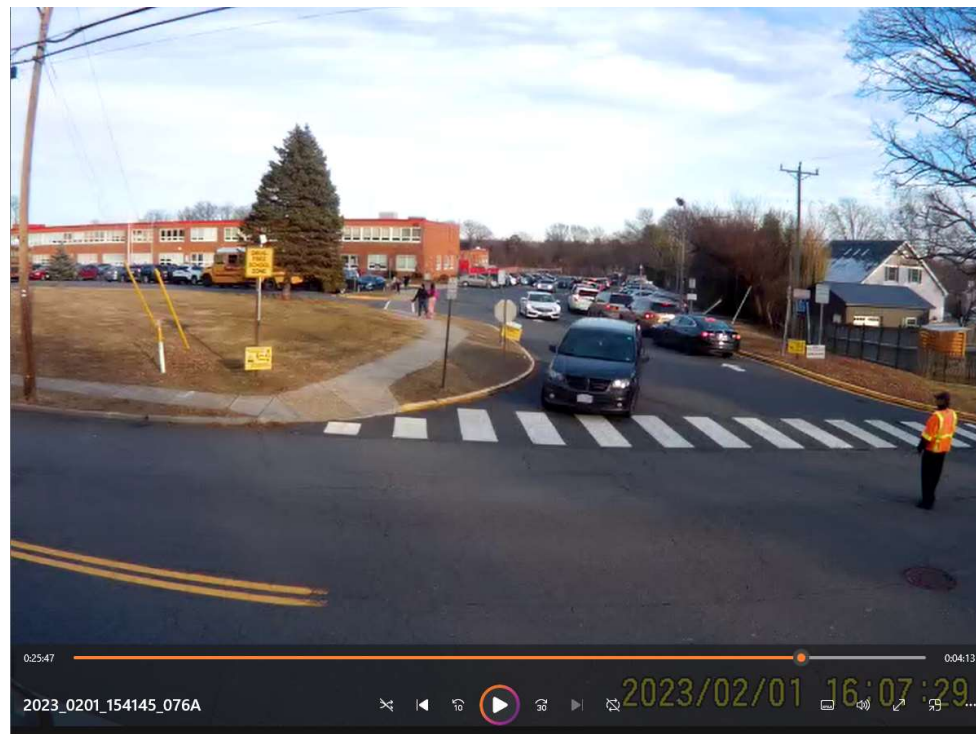
**4:03 PM – School bus drops off students from the southbound travel lane on Dranesville Road.**



**4:05 PM – School buses continue to enter the site via the vehicular egress lane due to on-site vehicle queues. Afternoon bell time occurs.**



**4:07 PM – First pick-up vehicles begin to exit the site. Vehicles make a right turn out of the site.**

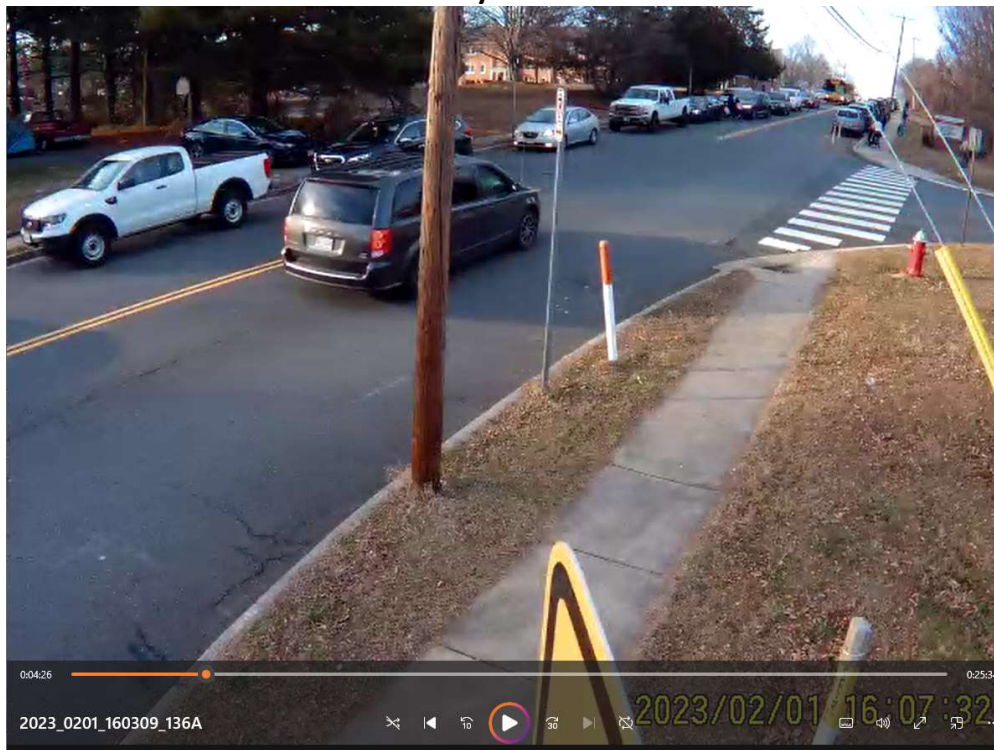




**4:07 PM – Approximately five (5) vehicles are queued along northbound Dranesville Road approaching the school's southern site driveway.**



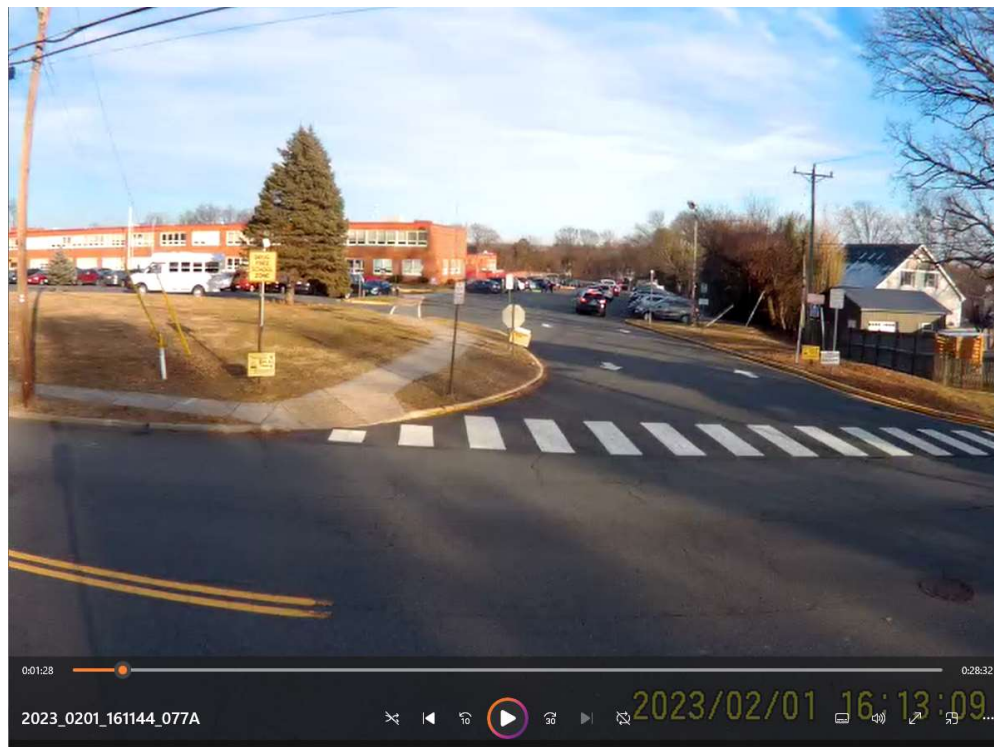
**4:07 PM – Vehicle queue along southbound Dranesville Road approaching the school's southern site driveway.**



**4:12 PM – Vehicles that have picked up students are temporarily held on-site to allow school buses to continue to enter the school bus area. Traffic attendant departs.**

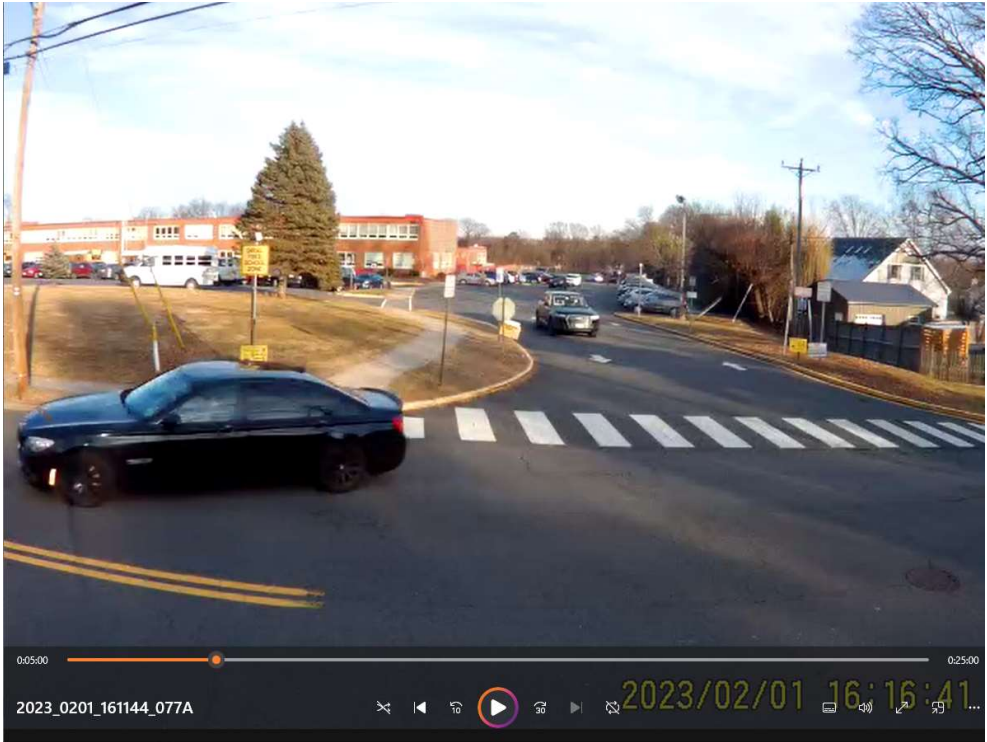


**4:13 PM – Ingress vehicle queue has receded from backing up to Dranesville Road.**





**4:16 PM – Last number of pick-up vehicles leave the site.**



**4:39 PM – Last observed school bus enters the site.**



## SUPPLEMENTAL FIELD OBSERVATION ON THURSDAY, SEPTEMBER 28, 2023

In light of the field observations in the 1<sup>st</sup> submission Traffic Study that did not fully document the back-of-queue for the southbound vehicle queues along Dranesville Road that approach the school's driveway, a supplemental field observation was undertaken. In coordination with Town of Herndon staff, the supplemental field observation took place on Thursday, September 28, 2023.

**Student Enrollment.** It should be noted that the reported student enrollment between the original field observation on Wednesday, February 1, 2023 and the supplemental field observation on Thursday, September 28, 2023 remained generally consistent as follows:

- February 1, 2023 = ±805 students
- September 28, 2023 = ±798 students

**Traffic Safety Attendant.** During the supplemental field visit, it was noted that the previously observed traffic attendant on February 1, 2023 has been replaced by Herndon police who were viewed in the field to have better managed school traffic and pedestrians.

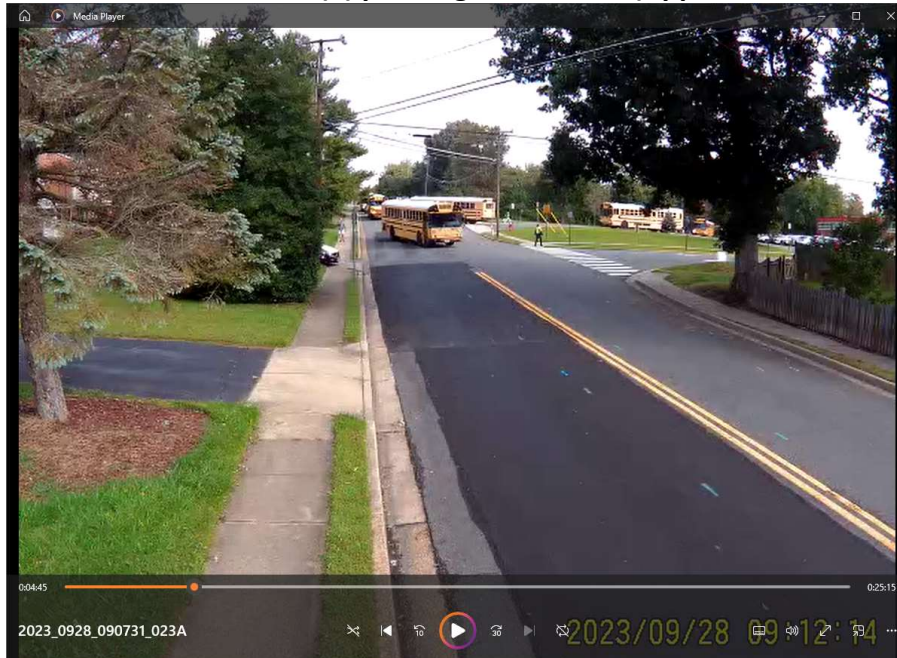
**AM and PM Peak Period Field Pictures.** Video equipment was utilized to conduct a supplemental field review of the southbound vehicle queues along Dranesville Road. The field review confirmed that peak vehicle queues do not exceed 400 feet and were better managed from what was observed in February 2023. Key screenshots of maximum queues and corresponding back-of-queue footage from the video footage was captured and shared below:

**9:06 AM – Three (3) southbound vehicles were queued on Dranesville Road. The school bus is required to enter the school site using the school's egress lane. The officer gives priority to a few egress vehicles to leave before allowing the bus to enter in order to reduce in the inbound vehicle queue.**

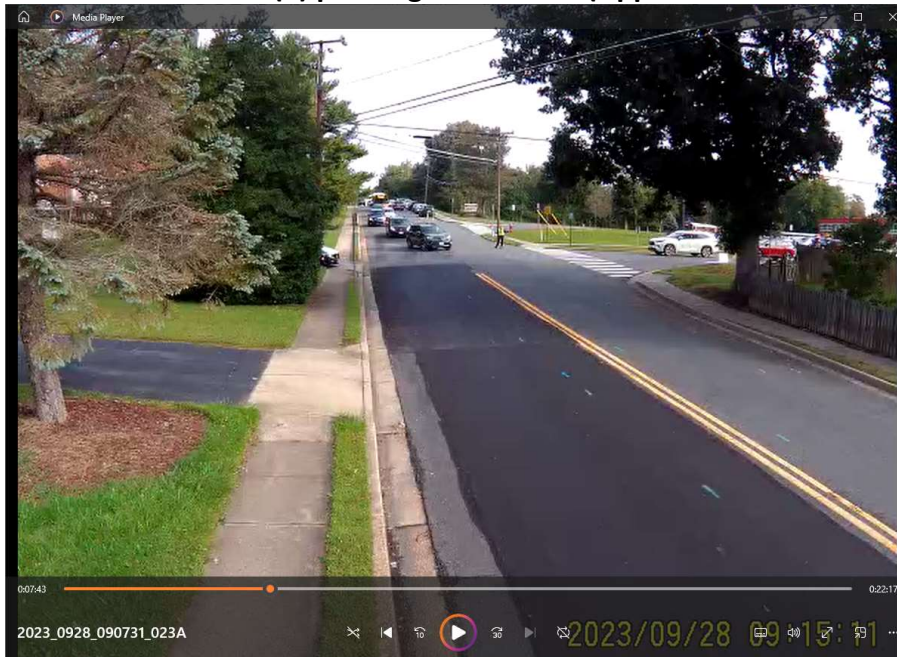




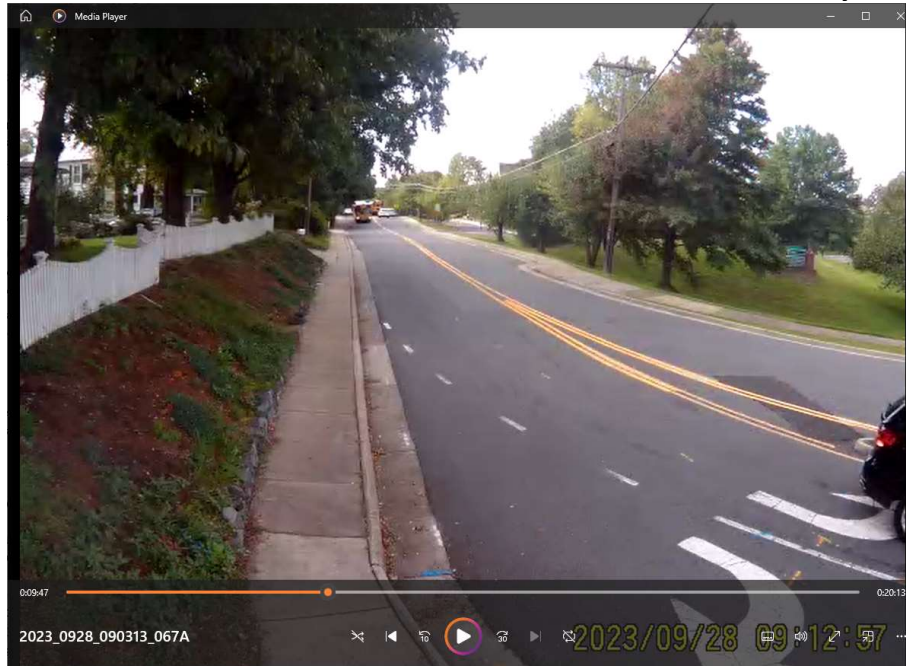
**9:12 AM – Five (5) southbound vehicles were queued which included three (3) school buses and two (2) passenger vehicles. (Approx. 200 foot vehicle queue)**



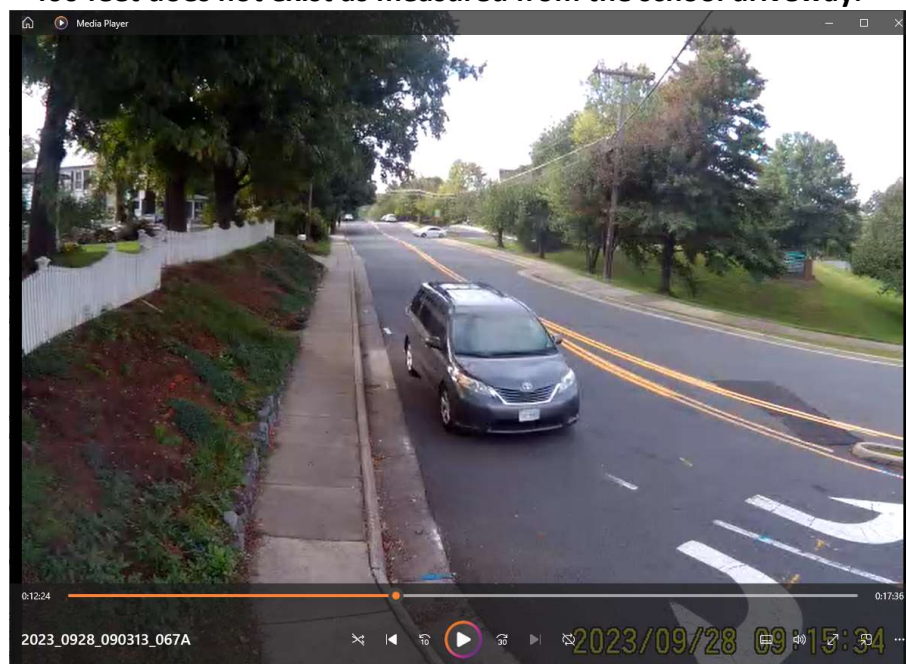
**9:15 AM – Seven (7) southbound vehicles were queued which included one (1) school bus and six (6) passenger vehicles. (Approx. 225 foot vehicle queue)**



**9:12 AM – Southbound (back-of-queue) view of Dranesville Road from the Dranesville Road/Park Avenue intersection. Vehicles queued on this roadway segment would represent queues exceeding 400 feet. This is a screen capture reflecting moving vehicles in the southbound direction where a queue beyond 400 feet does not exist as measured from the school driveway.**



**9:15 AM – Southbound (back-of-queue) view of Dranesville Road from the Dranesville Road/Park Avenue intersection. Vehicles queued on this roadway segment would represent queues exceeding 400 feet. This is a screen capture reflecting moving vehicles in the southbound direction where a queue beyond 400 feet does not exist as measured from the school driveway.**

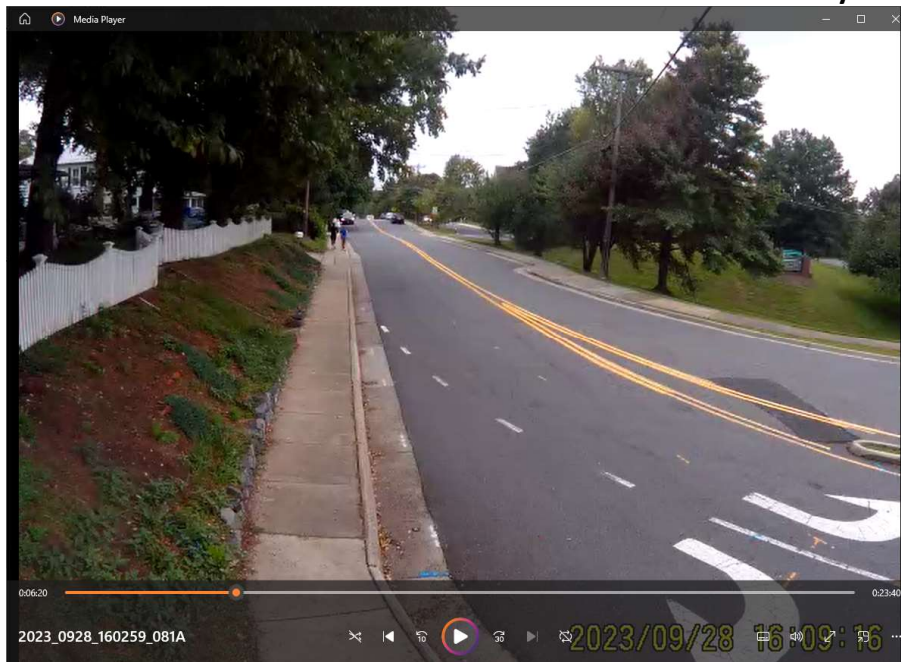




**4:09 PM – Three (3) southbound passenger vehicles were queued. (Approx. 75 foot vehicle queue)**



**4:09 PM – Southbound (back-of-queue) view of Dranesville Road from the Dranesville Road/Park Avenue intersection. Vehicles queued on this roadway segment would represent queues exceeding 400 feet. This is a screen capture reflecting moving vehicles in the southbound direction where a queue beyond 400 feet does not exist as measured from the school driveway.**



## PROPOSED OPERATIONS

As described previously and shown on Figure 1-3, the site would continue to be served by two (2) separate driveways on Dranesville Road at the locations that exist today. A side-by-side comparison between the current and proposed layout is shown on Figure 3-1.

The resulting key transportation improvements realized by the proposed layout are summarized below.

- 1) The internal site layout will be modified to meet FCPS' current standards by physically separating the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users.
- 2) Pedestrian circulation will be enhanced by eliminating the key internal vehicular/pedestrian conflicts that exist today between pedestrians and entering school bus traffic.
- 3) The on-site vehicle stacking distance will be improved for a relocated student drop-off/pick-up area. The number of vehicles that are able to stack on-site will be increased from approximately 28 vehicles to 60 vehicles. This will provide stacking for approximately 32 more vehicles than realized today.
- 4) School buses will now have their own dedicated ingress lane at the site's northern driveway.
- 5) Departing drop-off and pick-up vehicles will be able to efficiently leave the site and will no longer be required to yield to entering school buses. This will serve to improve exiting traffic flow and thereby reduce the length and duration that off-site vehicle queues occur on Dranesville Road.
- 6) Reduced vehicle queues on-site will improve the short-term traffic disruptions along Dranesville Road.



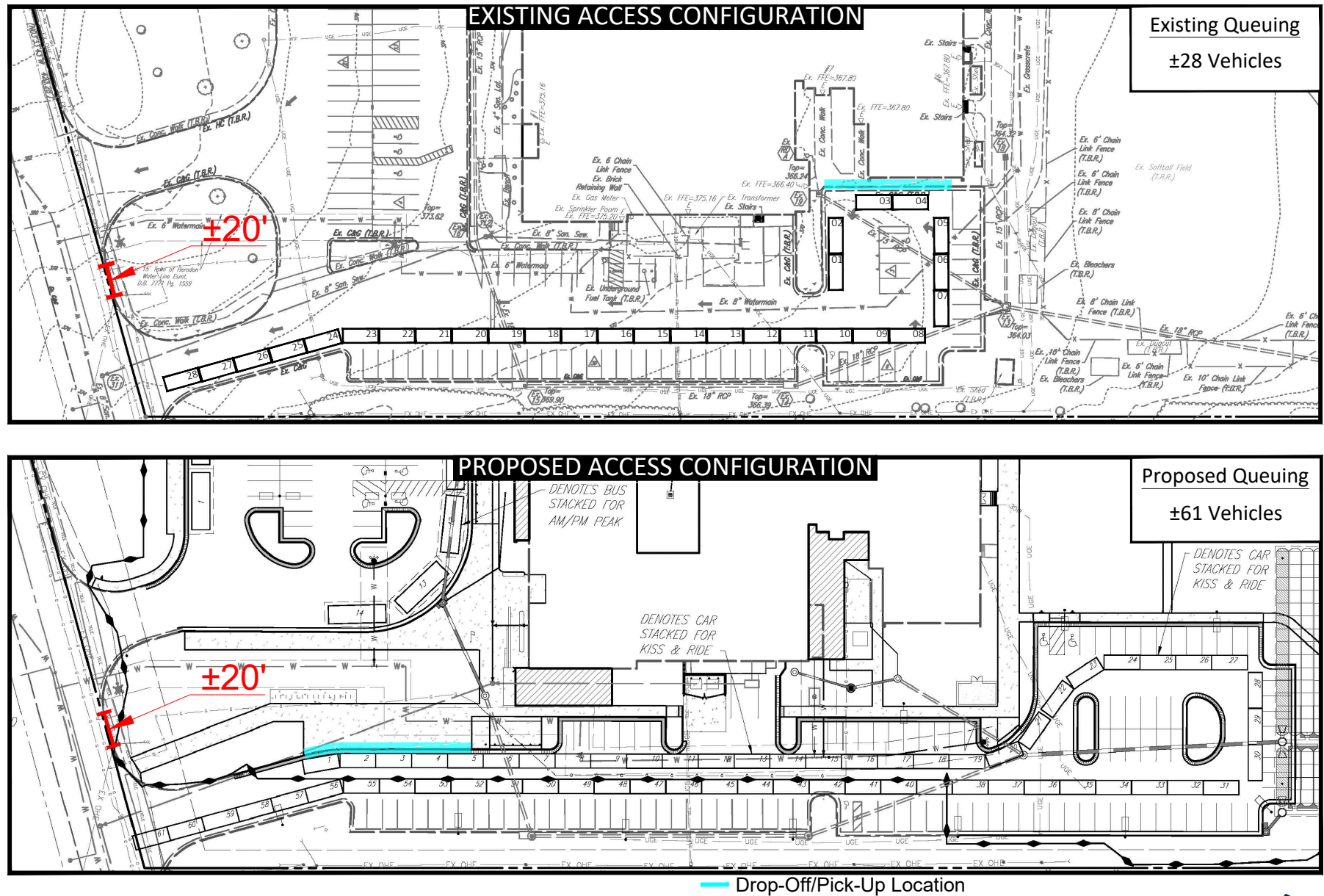


Figure 3-1  
Side-by-Side Comparison Between Current and Proposed Conditions



Herndon Elementary School  
Town of Herndon, Virginia

## Section 4 ANALYSIS OF EXISTING CONDITIONS

### TRAFFIC COUNTS

Vehicle turning movement, pedestrian, and bicycle counts were obtained for the site's two (2) existing site driveways as described below:

1. Dranesville Road / North Site Driveway (Egress Only)
2. Dranesville Road / South Site Driveway (Full Movement)

The peak period traffic counts were conducted on Wednesday, February 01, 2023 from 6 AM to 9 AM and from 2 PM to 5 PM when the Herndon Elementary School was in a typical full-day condition without delay. The intersection peak hours generally occurred from 8:30 AM to 9:30 AM and 3:45 PM to 4:45 PM. As discussed previously, the peak period impact of school traffic occurred within the following two (2) narrow distinct periods:

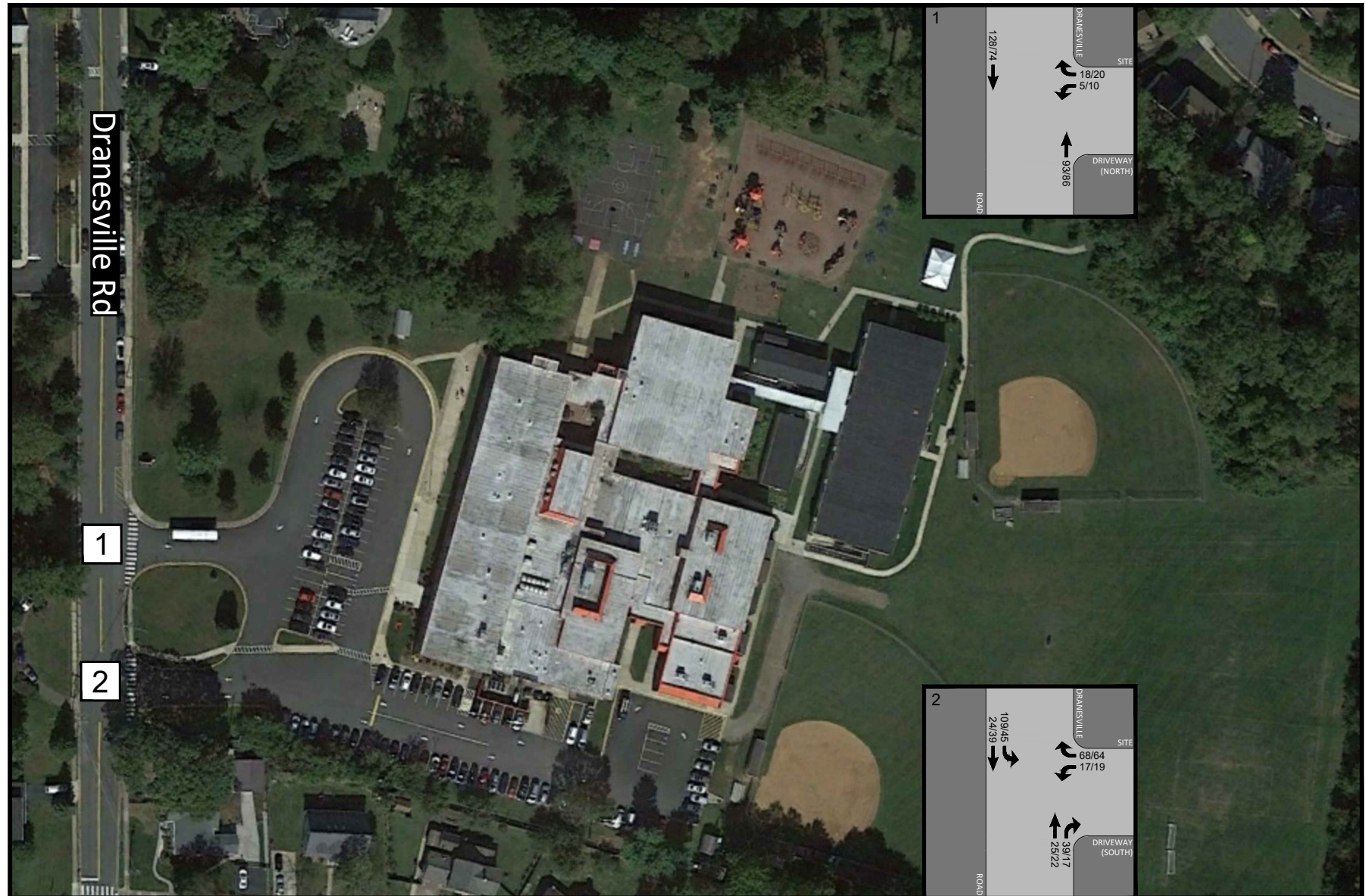
- 9:00 AM to 9:15 AM
- 3:50 PM and 4:12 AM

The individual intersection peak hour traffic volumes were utilized at the study intersections. The resulting baseline peak hour volumes used in this analysis are summarized as follows:

- Figure 4-1: Existing Peak Hour Vehicular Traffic Volumes (All Vehicles)
- Figure 4-2: Existing Peak Hour Vehicular Traffic Volumes (School and Shuttle Buses Only)
- Figure 4-3: Existing Peak Hour Pedestrian Traffic Volumes
- Figure 4-4: Existing Peak Hour Bicycle Traffic Volumes

The count data summary sheets are included for reference in Appendix C.





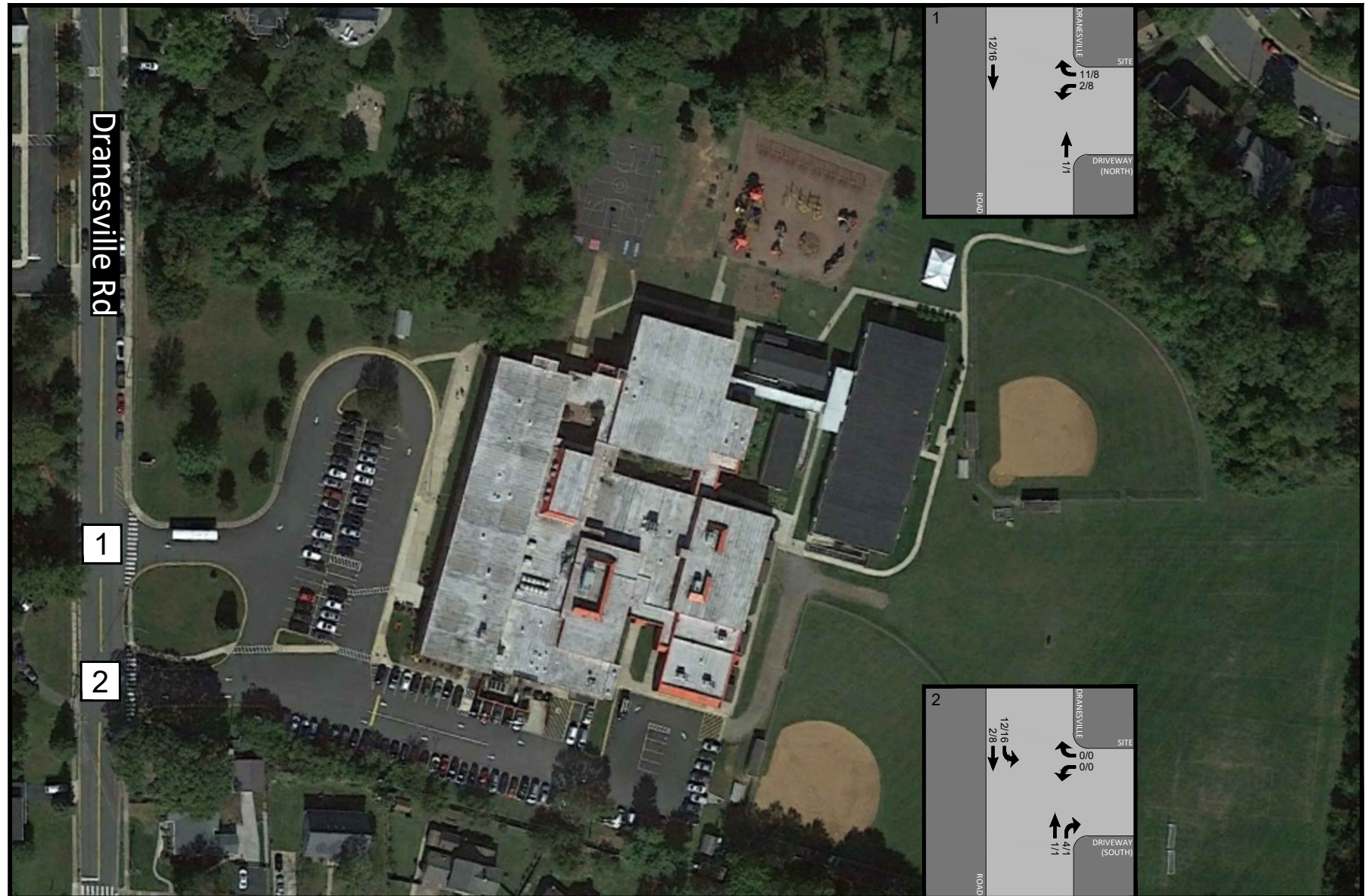
**Figure 4-1**  
Existing Peak Hour Vehicular Traffic Volumes  
(All Vehicles)

AM PEAK HOUR (8:30 - 9:30 AM)  
PM PEAK HOUR (3:45 - 4:45 PM)  
000 / 000



Herndon Elementary School  
Town of Herndon, Virginia





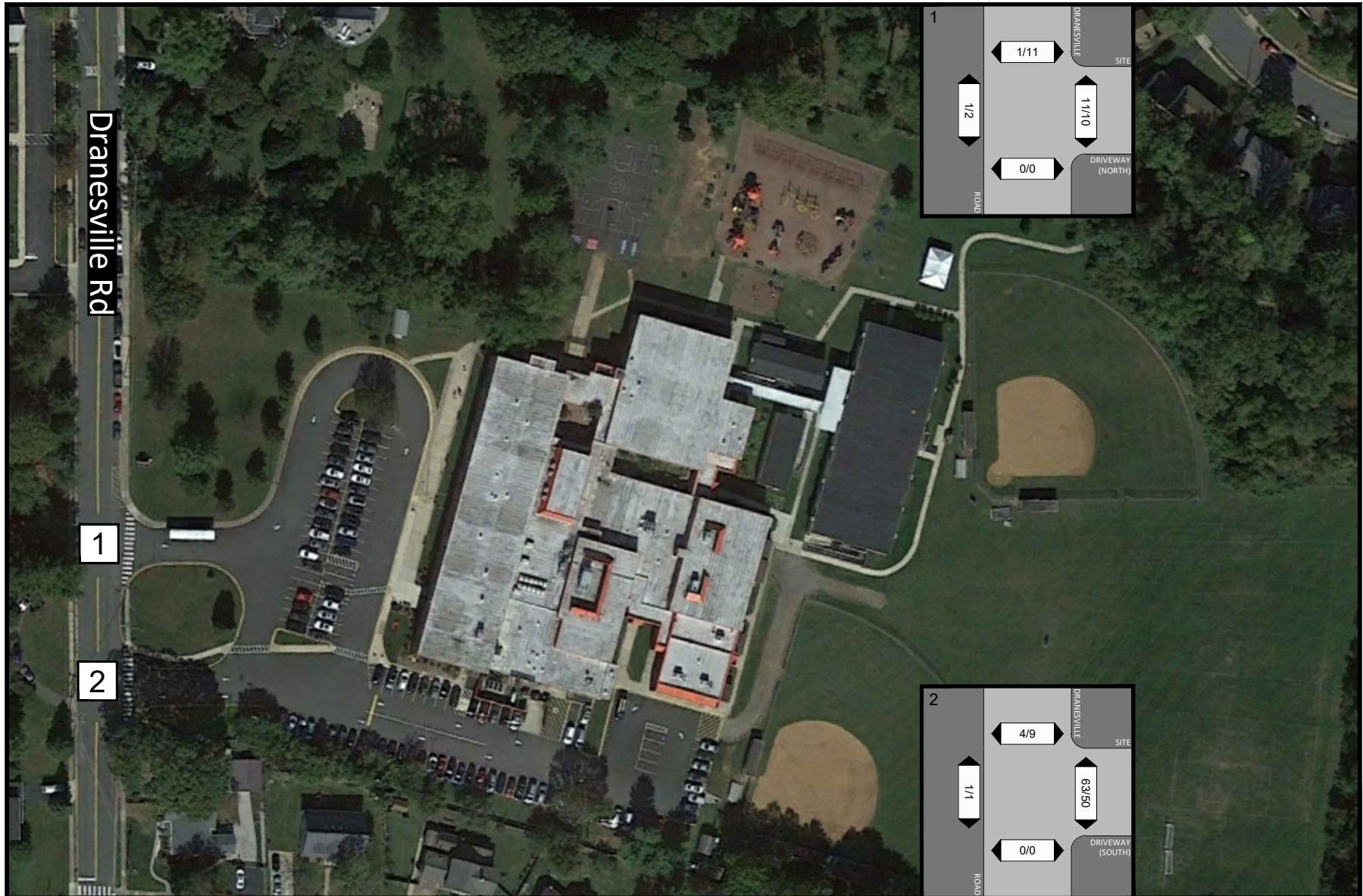
**Figure 4-2**  
Existing Peak Hour Vehicular Traffic Volumes  
(School and Shuttle Buses Only)

AM PEAK HOUR (8:30 - 9:30 AM)  
PM PEAK HOUR (3:45 - 4:45 PM)  
000 / 000



Herndon Elementary School  
Town of Herndon, Virginia





**Figure 4-3**  
Existing Peak Hour Pedestrian Traffic Volumes

AM PEAK HOUR (8:30 - 9:30 AM)  
PM PEAK HOUR (3:45 - 4:45 PM)  
000/000





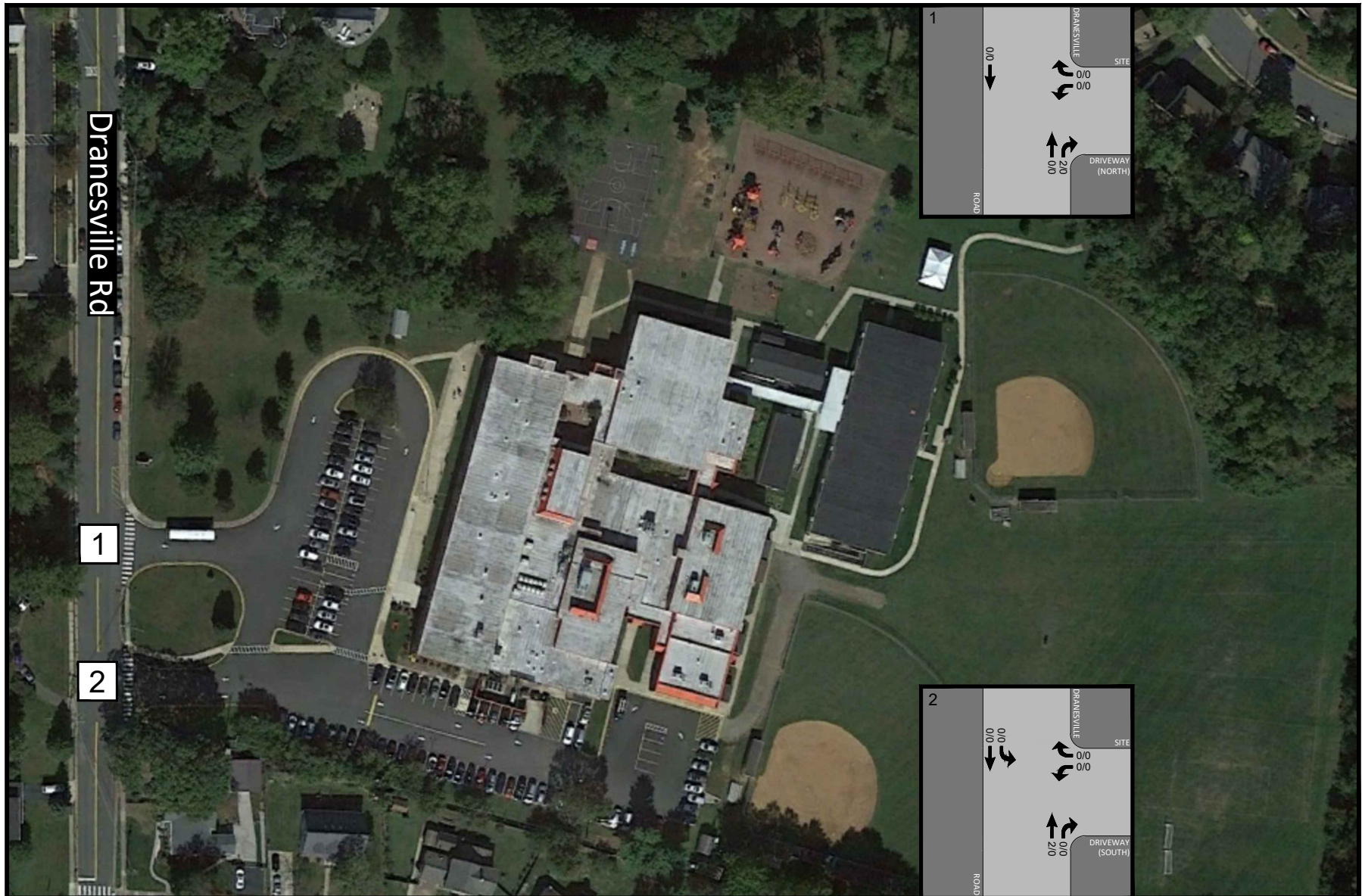


Figure 4-4  
Existing Peak Hour Bicycle Traffic Volumes

AM PEAK HOUR (8:30 - 9:30 AM)  
PM PEAK HOUR (3:45 - 4:45 PM)  
000 / 000



Herndon Elementary School  
Town of Herndon, Virginia



## 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 4-1, the pedestrian counts shown on Figure 4-3, the bicycle counts shown on Figure 4-4, and the existing lane use and traffic controls shown on Figure 4-5.

Synchro software (version 11) was used to evaluate levels of service, the 95<sup>th</sup> 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 95<sup>th</sup> percentile queues are presented in Appendix D. Levels of service are summarized in Table 4-1, and the 95<sup>th</sup> percentile queues are summarized in Table 4-2.

As discussed previously, the Herndon Elementary School utilizes a traffic safety attendant to fully control the Dranesville Road/South Site Driveway over a limited period. Given the narrow extent that the traffic attendant supports the southern site driveway, the traffic analysis presented herein evaluates the intersection without the added attendant support.

**Levels of Service.** Below is a summary of the level of service results as shown on Table 4-1:

**Intersection #1 – Dranesville Road/North Site Driveway:** The unsignalized traffic movements currently operate at an acceptable LOS “B” or better during the evaluated weekday AM and PM peak hours.

**Intersection #2 – Dranesville Road/South Site Driveway:** The unsignalized traffic movements currently operate at an acceptable LOS “B” or better during the evaluated weekday AM and PM peak hours.

It should be noted that the level of service results as summarized by Synchro evaluated a full peak hour and not reflective of the actual vehicle delays that occur during the school’s limited peak 15 to 20-minute traffic periods.

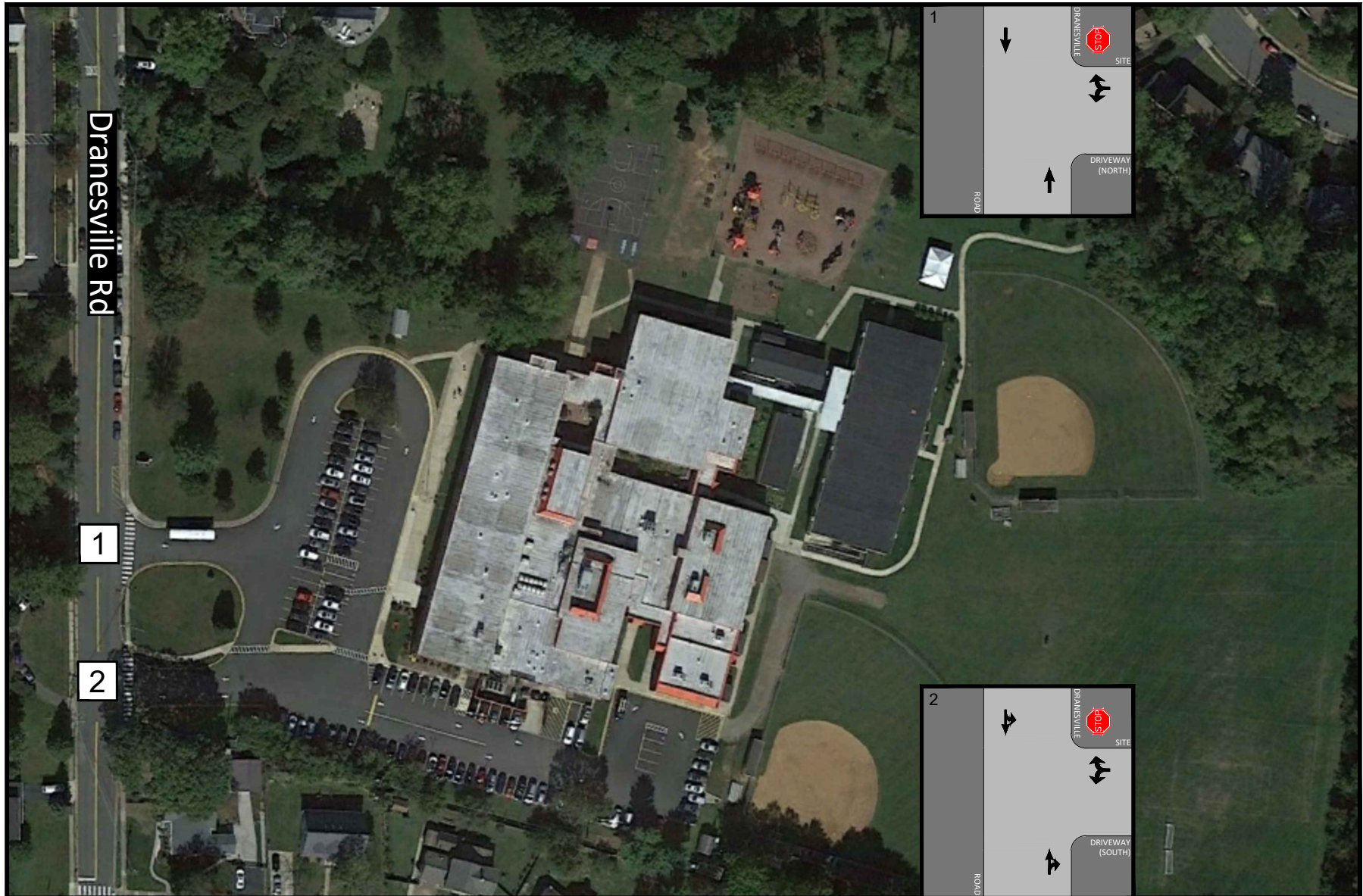


Figure 4-5  
Existing Lane Use and Traffic Controls

← Represents One Travel Lane  
 Stop Sign



NORTH

Herndon Elementary School  
Town of Herndon, Virginia





Table 4-1  
Herndon Elementary School  
Intersection Levels of Service Summary<sup>(1)(2)</sup>

| Intersection                                     | Operating Condition | Street Name                                                                 | Approach/Movement    | Existing Condition             |                                | Future Condition               |                                |
|--------------------------------------------------|---------------------|-----------------------------------------------------------------------------|----------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                                  |                     |                                                                             |                      | AM                             | PM                             | AM                             | PM                             |
| 1 <b>Dranesville Road</b> /Site Driveway (North) | STOP                | Site Driveway (North)<br><b>Dranesville Road</b><br><b>Dranesville Road</b> | WBLR<br>NBT<br>SBT   | B [10.2]<br>A [0.0]<br>A [0.0] | B [10.1]<br>A [0.0]<br>A [0.0] | B [10.1]<br>A [0.0]<br>A [2.1] | B [10.1]<br>A [0.0]<br>A [2.2] |
| 2 <b>Dranesville Road</b> /Site Driveway (South) | STOP                | Site Driveway (South)<br><b>Dranesville Road</b><br><b>Dranesville Road</b> | WBLR<br>NBTR<br>SBLT | B [10.7]<br>A [0.0]<br>A [6.8] | A [10.0]<br>A [0.0]<br>A [4.5] | B [10.1]<br>A [0.0]<br>A [6.1] | A [9.6]<br>A [0.0]<br>A [3.0]  |

Notes: (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

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

Table 4-2  
Herndon Elementary School  
Intersection Queuing Summary<sup>(1)(2)</sup>

| Intersection                                     | Operating Condition | Street Name             | Approach/Movement | Available Storage (ft) | Existing Condition |    | Future Condition |    |
|--------------------------------------------------|---------------------|-------------------------|-------------------|------------------------|--------------------|----|------------------|----|
|                                                  |                     |                         |                   |                        | AM                 | PM | AM               | PM |
| 1 <b>Dranesville Road</b> /Site Driveway (North) | STOP                | Site Driveway (North)   | WBLR              | N/A                    | 3                  | 4  | 3                | 4  |
|                                                  |                     | <b>Dranesville Road</b> | NBT               | N/A                    | 0                  | 0  | 0                | 0  |
|                                                  |                     | <b>Dranesville Road</b> | SBT               | N/A                    | 0                  | 0  | 2                | 1  |
| 2 <b>Dranesville Road</b> /Site Driveway (South) | STOP                | Site Driveway (South)   | WBLR              | N/A                    | 14                 | 11 | 10               | 8  |
|                                                  |                     | <b>Dranesville Road</b> | NBTR              | N/A                    | 0                  | 0  | 0                | 0  |
|                                                  |                     | <b>Dranesville Road</b> | SBLT              | N/A                    | 10                 | 4  | 5                | 2  |

Notes: (1) Queue length is based on the 95th percentile queue in feet as reported by Synchro, Version 11.

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



**Queues.** The calculated 95<sup>th</sup> 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 results are summarized in Table 4-2 and included in Appendix D. As shown in Table 4-2, existing queues were reported to be minimal with vehicle queues less than one (1) vehicle in length for both study intersections. The calculated peak hour queues were determined to not reflect the observed peak period school queues that have a 15-to-20-minute duration.

Based on field observations on Wednesday, February 1, 2023, the northbound vehicle at the school's southern driveway were observed to be minimal at approximately five (5) vehicles or less. The southbound peak vehicle queues for entering school traffic spilled back into and beyond along Dranesville Road with excessive vehicle queues exceeding to, or at least, 400 feet in the southbound direction disrupting typical vehicle travel along Dranesville Road. The school's peak traffic period occurs over a 15-to-20 minute period during the school's weekday AM period drop-off and PM period pick-up.

A supplemental field observation was undertaken on Thursday, September 28, 2023 in coordination the Town of Herndon staff. The supplemental field observation confirmed that the southbound vehicle queues on Dranesville Road do not extend to, nor exceed 400 feet. It was noted that the previous observed traffic attendant in February 2023 has been replaced by a police officer who appeared to have better managed the school's traffic.

## Section 5 ANALYSIS OF FUTURE CONDITIONS

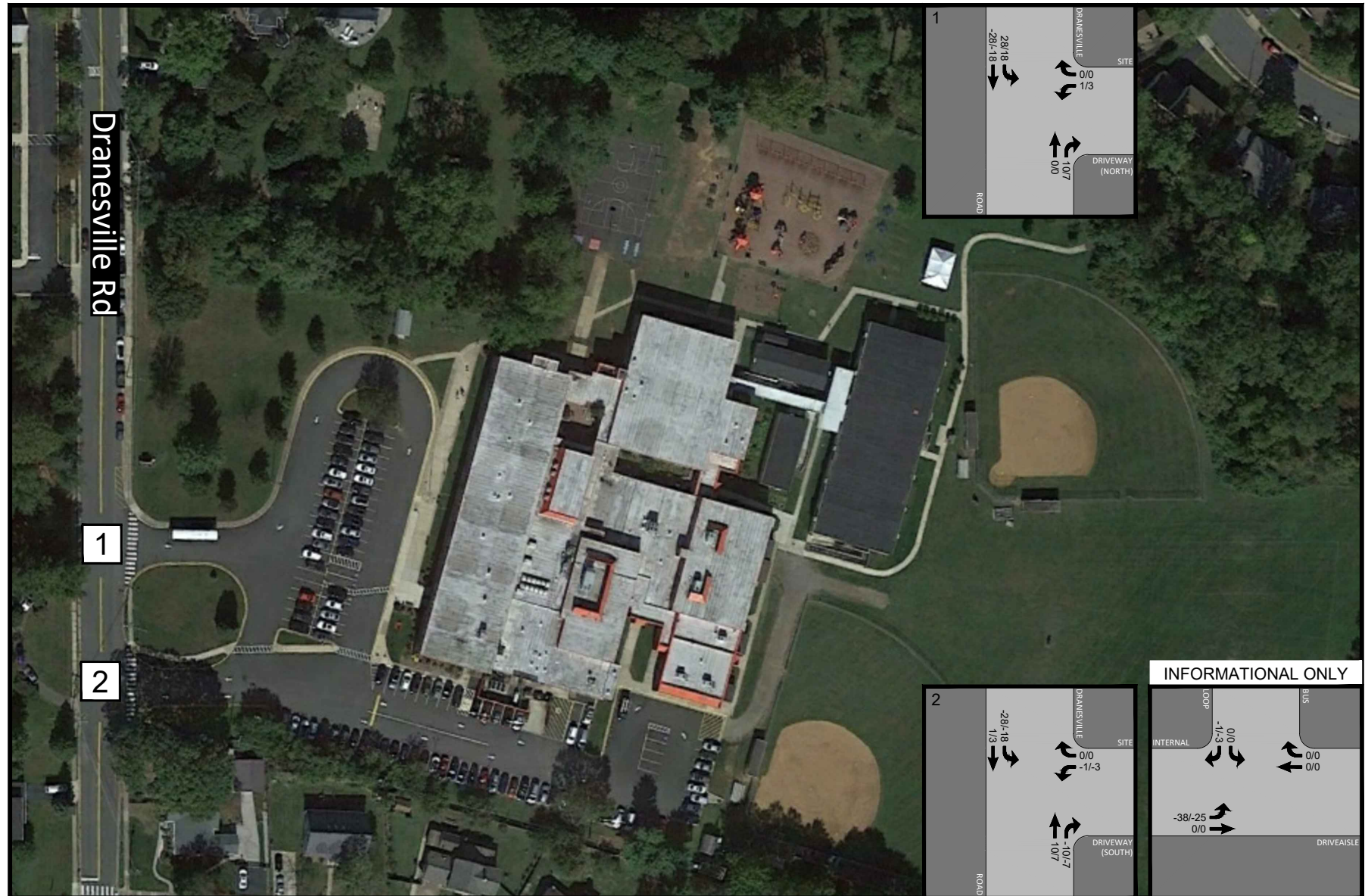
### TRAFFIC VOLUMES

**Methodology/Assumptions.** Traffic forecasts with the proposed site improvements were derived based solely on a reassignment of existing traffic to account for the proposed internal site improvements. Given the proposal will result in a net reduction in student capacity, this analysis is limited to a reevaluation of existing traffic that is reassigned to reflect a new circulation pattern.

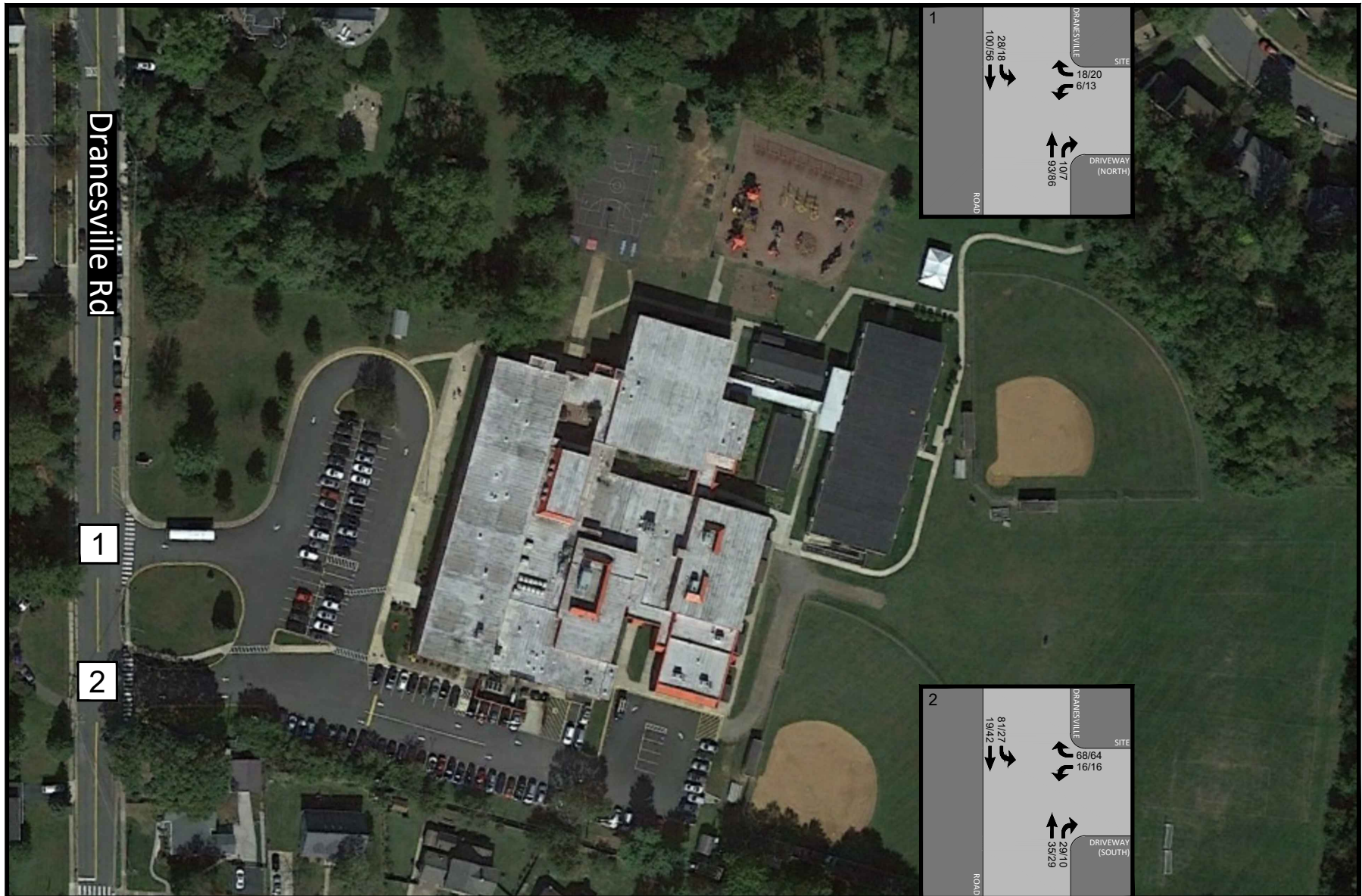
**Site Traffic Reassignments.** As shown on Figure 1-3, the site would continue to be served by two (2) separate driveways on Dranesville Road at the locations that exist today. However, the internal site layout will be modified to meet FCPS' current standards by physically separating the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users. All school bus and shuttle bus traffic was oriented to the site's north driveway and all drop-off/pick-off traffic will continue to utilize the site's south driveway.

Observations of internal traffic flows supported the reassignments. The reassignment of existing site traffic is reflected on Figure 5-1. The resulting reassignment of the existing peak hour traffic volumes is shown on Figure 5-2 (=Figure 4-1 + Figure 5-1).





**Figure 5-1**  
Reassignments of Existing Site Traffic  
Reflecting Proposed Site Improvements



**Figure 5-2**  
Reassigned, Existing Peak Hour Vehicular Traffic Volumes

AM PEAK HOUR  
PM PEAK HOUR  
000 / 000



Herndon Elementary School  
Town of Herndon, Virginia



## OPERATIONAL ANALYSIS

Capacity analyses with proposed circulation/site access improvements were performed for the study intersections using the future lane use and traffic controls shown on Figure 5-3, the reassigned existing traffic shown on Figure 5-2, and the observed pedestrian/bicycle counts. Levels of service are summarized in Table 4-1 and the 95<sup>th</sup> percentile queues are summarized in Table 4-1. The levels of service and the 95<sup>th</sup> percentile queue results are presented in Appendix E.

**Levels of Service.** Below is a summary of the level of service results as shown on Table 4-1:

**Intersection #1 – Dranesville Road/North Site Driveway:** The unsignalized traffic movements would continue to operate at an acceptable LOS “B” or better during the evaluated weekday AM and PM peak hours.

**Intersection #2 – Dranesville Road/South Site Driveway:** The unsignalized traffic movements would continue to operate at an acceptable LOS “B” or better during the evaluated weekday AM and PM peak hours.

Consistent with existing conditions, it should be noted again that the level of service results as summarized by Synchro evaluated a full peak hour and not reflective of the actual vehicle delays that occur during the school’s limited peak 15 to 20-minute traffic periods.

**Queues.** The calculated 95<sup>th</sup> percentile queues associated with the reassigned existing traffic are summarized in Table 4-2 and included in Appendix E. As shown in Table 4-2, vehicle queues were reported again to be minimal with vehicle queues less than one (1) vehicle in length for both study intersections. Consistent with the existing conditions analysis, the calculated peak hour queues for future conditions were determined to not reflect the peak school period queues that have a 15-to-20-minute duration.

**Proposed Operational Improvements.** The observed vehicle queues discussed under Section 3 and Section 4 are anticipated to be reduced and mitigated by the proposed on-site improvements. The key improvements include providing additional on-site vehicle stacking for approximately 32 more vehicles beyond the current ±28 vehicles which will provide approximately 600 feet of additional vehicle stacking to contain the previously discussed 400 feet of off-site vehicle queues. The supplemental field observations on September 28, 2023 suggest a lesser vehicle queue impact on Dranesville Road than previously reported in February 2023. The proposed on-site improvements will also eliminate the existing vehicle conflicts that occur between the drop-off/pick-up vehicles and entering school buses. This existing conflict disrupts the efficient flow of vehicles entering and exiting the school site, exacerbating vehicle queues during the school’s peak traffic periods. As discussed previously, the school’s peak traffic period occurs over a 15-to-20 minute period during the school’s weekday AM period drop-off and PM period pick-up.

## OFF-SITE INTERSECTION IMPACTS

Given the subject proposal will ultimately reduce the school's student design capacity over existing conditions, the proposal will result in net fewer trips added to the area road network and in turn reduce traffic impacts beyond the evaluated study intersections.

Further, in the short term, based on a review of the proposed site circulation improvements that will improve how vehicles enter and exit the site along with additional on-site vehicle queuing area, the improved site circulation patterns will in part mitigate existing off-site queues in length and duration while improving off-site intersections not evaluated in this study.



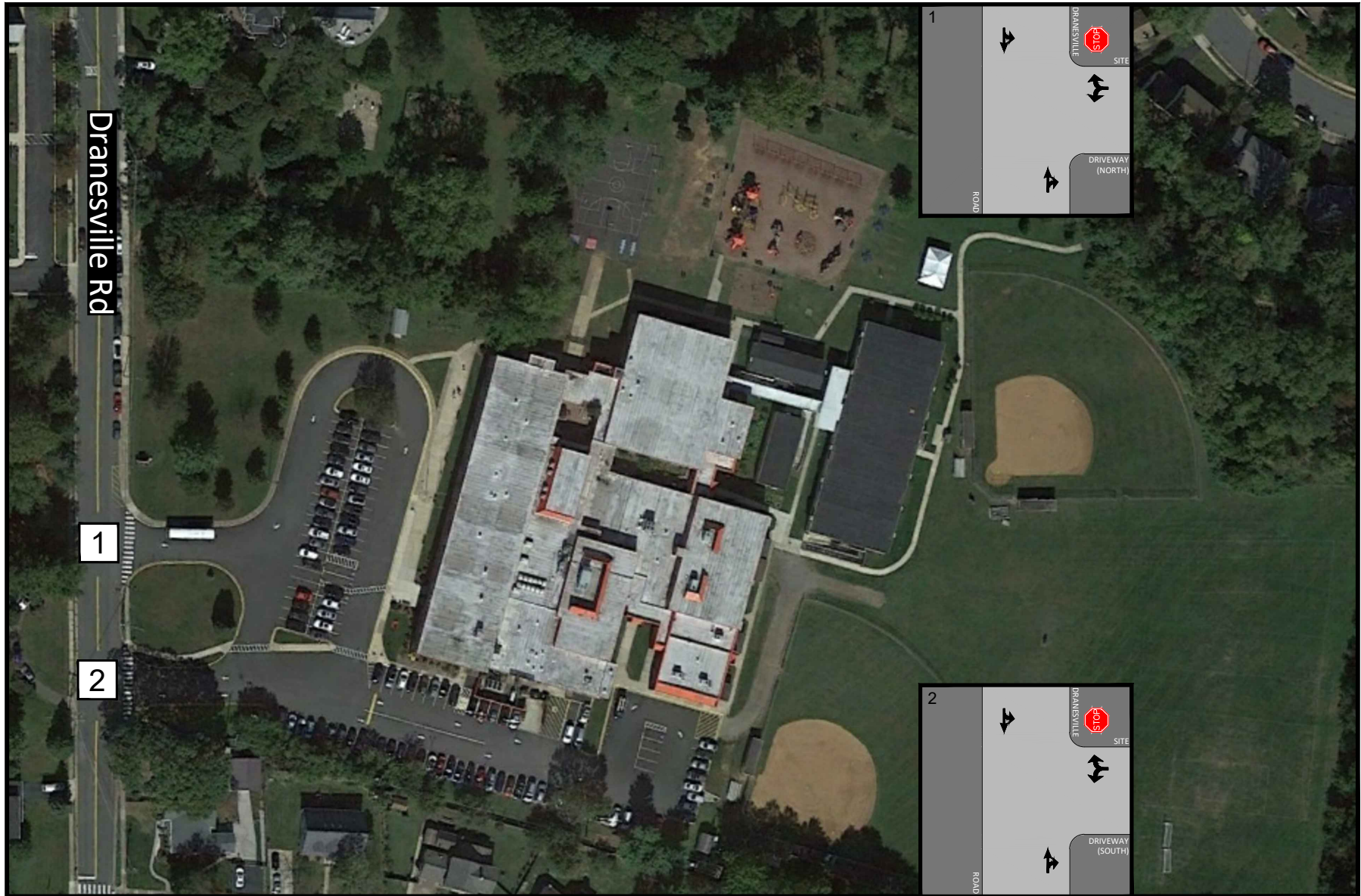


Figure 5-3  
Future Lane Use and Traffic Controls

← Represents One Travel Lane  
 Stop Sign



Herndon Elementary School  
Fairfax County, Virginia

## Section 6 ACCESS MANAGEMENT

According to the Federal Highway Administration (FHWA), access management is “the proactive management of vehicular access points to land parcels adjacent to all manner of roadways. Good access management promotes safe and efficient use of the transportation network.” In 2007, the Virginia General Assembly approved legislation to direct the VDOT commissioner to develop and implement access management regulations and standards with the goals of:

- Reducing traffic congestion,
- Enhancing public safety by decreasing traffic crash rates,
- Supporting economic development by promoting the efficient movement of people and goods,
- Reducing the need for new highways and road widening by maximizing the performance of the existing state highways, and
- Preserving the public investment in new highways.

Appendix F of the VDOT Road Design Manual (RDM) establishes the access management criteria for various types of roadways within the Commonwealth.

Roadway Classifications. Based on both VDOT and Town of Herndon criteria, Dranesville Road (Route 2492) and Fillmore Street (Route 2561) within the immediate vicinity of the site are classified as “Local” streets.

Corner Clearance. Corner Clearance is the measured distance between a major roadway and a site access point along the connecting street. Given VDOT’s Corner Clearance standard does not apply to the intersection of two functionally classified local streets, the Corner Clearance spacing between the school’s southern driveway and Fillmore Street does not apply.

Driveway Spacing. For commercial entrances on local streets (not individual private entrance driveways to homes), a spacing distance of 50 feet between entrance radii is specified to assure a minimum separation. The existing and proposed spacing between the site’s existing north and south site driveways on Dranesville Road will generally remain consistent with existing conditions. However, the existing ±20-foot spacing between these two (2) driveways does not meet the VDOT 50-foot spacing standard along a local street (see Figure 3-1). Given the subject proposal does not change the existing use nor increase the student design capacity, VDOT would typically not require an Access Management Exception or Waiver to be submitted.



## Section 7 CRASH DATA

Crash data for the study intersections were obtained from both the Town of Herndon and VDOT under separate requests. The reports are provided in Appendix F.

### TOWN OF HERNDON CRASH DATA

The Town of Herndon provided a “Crash Statistic Report” for the approximate 0.2 mile (or 1,056 foot) segment of Dranesville Road (Route 2492) between Park Avenue (Route 228) to the north and Fillmore Street (Route 2561) to the south.

**Date Range:** Year 2019 through January 2023 (±3 years)

**Summary:** According to the crash report, there were no reported crashes within the immediate proximity of the site driveways on Dranesville Road that serve the Herndon Elementary School nor at the adjacent Dranesville Road/Fillmore intersection.

Two (2) crashes were reported at the Dranesville Road/Park Avenue intersection. Both occurred on a Saturday or Sunday when the public school was closed.

### VDOT CRASH DATA

VDOT provided a Crash Report for an approximate 250-foot radius as measured from each school driveway on Dranesville Road (Route 2492) and the Dranesville Road (Route 2492)/Fillmore Street (Route 2561) intersection.

**Date Range:** Year 2017 through December 2022 (±6 years)

**Summary:** According to the crash report, there were no reported crashes within the immediate proximity of the site driveways on Dranesville Road that serve the Herndon Elementary School.

One (1) crash was reported on Fillmore Street (Route 2561) just west of the Dranesville Road/Fillmore Street intersection. The crash occurred at 1:27 AM on a Sunday when the public school was closed.

## Section 8 CONCLUSIONS AND RECOMMENDATIONS

### CONCLUSIONS

Based on this assessment, the overall conclusions are as follows:

#### Existing Conditions

1. The existing Herndon Elementary School program is summarized as follows:

- Fixed Building Area = ±85,165 square feet of gross floor area (GFA)
- Trailer/modular Area = ±15,264 GFA
- Total Existing Building Area = ±100,429 GFA
  
- Current Enrollment = ±805 students (*Wednesday, February 01, 2023*)
- Existing Student Design Capacity = ±1,232 students
  
- Regular School Hours: Monday – Friday, 9:20 AM – 4:05 PM
- Office Hours: Monday – Friday, 8:00 AM – 4:30 PM

2. Access is currently provided by two (2) existing driveways on Dranesville Road. The northern driveway serves as an egress only for school buses and limited school staff. The nearby southern driveway serves both ingress and egress traffic movements and serves as the sole entrance for all entering school buses, staff, and student pick-up/drop-off operations. Egress movements at the southern driveway includes all user types except for school buses.

3. The existing driveway configuration requires the mixing of multiple users creating conflict points between the different operations. For example, entering school buses may block or be blocked by vehicles seeking to pick-up or drop-off students and there are pedestrian and school bus conflicts as school buses turn into the designated school bus area.

4. The school's key traffic impact periods when students are dropped off in the morning and picked-up in the afternoon generally occur within a short-defined period (±15-20 minutes) when vehicle queues spill into and along Dranesville Road. The key traffic impact periods were generally observed to occur at the following times:

- 9:00 AM to 9:15 AM
- 3:50 PM to 4:12 PM

5. The existing layout provides on-site stacking for approximately 28 vehicles to queue up to the student drop-off/pick-up area before the queue approaches or spills into Dranesville Road.



6. During the key traffic impact periods when on-site vehicle queues spill back to Dranesville Road, entering school buses are directed to enter the site using the egress lane at the south site driveway. When this occurs, exiting drop-off/pick-up vehicles are prevented from leaving the site which exacerbates existing vehicle queues.
7. Based on field observations on Wednesday, February 1, 2023, the northbound vehicle at the school's southern driveway were observed to be minimal at approximately five (5) vehicles or less. The southbound peak vehicle queues for entering school traffic spilled back into and beyond along Dranesville Road with excessive vehicle queues exceeding to, or at least, 400 feet in the southbound direction disrupting typical vehicle travel along Dranesville Road.
8. During a supplemental field observation on Thursday, September 28, 2023, it was observed that southbound vehicle queues were better managed along Dranesville Road where they did not extend to, nor exceed 400 feet.
9. As observed during the February 2023 field visit, the Herndon Elementary School provided a traffic safety attendant to control traffic and pedestrian movements during the following observed times:
  - 9:02 AM to 9:16 AM
  - 4:03 PM to 4:12 PM

During the supplemental field visit in September 2023 when the off-site vehicles queues appeared to be better managed, it was observed that the Herndon police have taken over the control of school traffic during its peak drop-off and pick-up periods.

### Proposed Conditions

10. The proposed access and circulation plan will improve overall traffic flow between student drop-off/pick-up vehicles, school buses, and pedestrians while also improving the length and duration of existing off-site queues along Dranesville Road.
11. The proposed renovation project will result in the following development program:
  - Existing Fixed Building Area = ±85,165 GFA
  - Proposed New Building Area = ±44,039 GFA
  - Total Proposed Building Area = ±129,204 GFA (or ±28,775 more GFA than the total existing building area)
  - Proposed Student Design Capacity = ±1,050 students (or ±182 fewer students than the existing design capacity)

12. The proposed access and circulation plan would continue to utilize the existing two (2) separate driveways on Dranesville Road at the locations that exist today. However, the internal site layout will be modified to meet FCPS' current standards by physically separating the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users. Pedestrian circulation will also be enhanced by removing the key internal vehicular/pedestrian conflicts that exist today between on-site pedestrians and school buses.
13. The proposed layout provides on-site stacking for approximately 60 vehicles to queue up to the relocated student drop-off/pick-up area before the queue approaches or spills into Dranesville Road. This doubles the current stacking area by providing stacking for approximately 32 more vehicles beyond the approximately 28 vehicles that can stack on-site today which is anticipated to mitigate the vehicles that spill back onto Dranesville Road.
14. School buses will now have their own dedicated ingress lane at the site's northern driveway.

### **General Conditions**

15. From a level of service perspective that evaluates the peak hour (not partial 15 to 20-minute period), both proposed site driveways along Dranesville Road operate at acceptable levels of service. Based on field observations, extended vehicle delays and extensive disruptions predominately occur along southbound Dranesville Road during the school's peak AM and PM traffic periods, but they are limited to only 15 to 20 minutes.
16. The existing two (2) site driveways that will generally remain as currently designed do not meet VDOT's access management spacing requirements for a "local" street. Given the site does not propose a change in use nor plans to intensify the site beyond its current student design capacity, a separate submission to address access management standards is not deemed necessary.
17. Corner clearance spacing between the site's south driveway on Dranesville Road and Fillmore Street is not applicable given that both Dranesville Road and Fillmore Street are intersecting "local" streets.
18. Based on reported crash data provided by the Town of Herndon and VDOT, there have been no recorded crashes in the vicinity of the school's driveways on Dranesville Road nor as a direct result of school related traffic or activities.

### **RECOMMENDATIONS**

1. The project should modify its access and circulation as proposed to improve safety, school traffic operations, and reduce on-site/off-site vehicle queues.



2. The Herndon Elementary School should continue to utilize a traffic safety attendant(s) to control the school's driveways on Dranesville Road, as needed, if consistent vehicle queues spill back onto Dranesville Road. The traffic attendant should be certified to control traffic within the public right-of-way.
3. The school should continue to monitor traffic operations as current enrollment levels may increase to its planned design capacity.
4. The school should continue to promote carpooling, school bus ridership, and safe pedestrian/bicycle routes to/from school.
5. The school should also continue regular communication with the school's community to make them aware of future and upcoming changes to the site's access and circulation.

## **APPENDIX A**

### **SIGNED SCOPING AGREEMENT & COMMENT/RESPONSE MEMO**





11220 Assett Loop  
Suite 202,  
Manassas, VA 20109  
703-365-9262  
[WellsandAssociates.com](http://WellsandAssociates.com)

January 25, 2023

## VIA ELECTRONIC DELIVERY

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

RE: Herndon Elementary School  
Traffic Study Scope;  
Town of Herndon, Virginia

Dear Mr. Perry,

The purpose of this letter is to summarize the traffic study scoping meeting that is associated with the proposed Herndon Elementary School improvement project within the Town of Herndon.

**Meeting Date/Time:** Friday, January 20, 2023/10:30 AM

**Meeting Location:** WebEx Virtual Meeting

**Meeting Attendees:** Bryce Perry, Town of Herndon  
Holli McKinley, FCPS  
Najib Hameed, FCPS  
Vincent Santmyer, FCPS  
Andrew Peterson, FCPS  
John Cummings, RDA Civil  
Maureen Wiechert, Cooper Carry  
Kevin Fellin, Wells+Associates

---

**Applicant:** Fairfax County Public Schools (FCPS)

**Site Location:** The Herndon Elementary School site is generally located in the northeast quadrant of the Dranesville Road (Route 2492)/Fillmore Street (Route 2561) intersection at 360 Dranesville Road in the Town of Herndon, Virginia (**see ATTACHMENT I**). The ±13.885-acre property is also identified as **Parcel # 010-4 ((02)) 66A**.

# WELLS + ASSOCIATES

**Background:** The Herndon Elementary School is an existing operating school that is currently zoned to the R-10 District and improved with the following development program:

- Existing Fixed Building Area = ±86,895 square feet of gross floor area (GFA)
- Trailer/Modular Building Area = ±14,682 GFA
- Total Existing Building Area = ±101,477 GFA
- Current Enrollment = ±754 students
- Existing Design Capacity = ±1,232 students

**Existing Site Access (see ATTACHMENT 2).** Access is currently provided by two (2) existing driveways on Dranesville Road. The northern driveway serves as an egress only for school buses and limited school staff. The nearby southern driveway serves both ingress and egress traffic movements and serves as the sole entrance for all entering school buses, staff, and student pick-up/drop-off operations. Egress movements at the southern entrance includes all user types except for school buses.

**Proposal:** FCPS is seeking an application to remove the existing trailer/modular educational space and replace it with permanent new building area under a comprehensive renovation project that will bring the overall Herndon Elementary School up to applicable building code standards and educational requirements. The proposed school site will result in the following development program:

- Existing Fixed Building Area = ±86,895 square feet of gross floor area (GFA)
- Proposed New Building Area = ±44,027 GFA
- Total Proposed Building Area = ±130,922 GFA
- Proposed Design Capacity = ±1,050 students (or 182 fewer students)

**Proposed Site Access (see ATTACHMENT 3).** The site would continue to be served by two (2) separate driveways on Dranesville Road at the locations that exist today. However, the internal site layout will be modified to physically separate the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users. Pedestrian circulation will also be enhanced by removing the key internal vehicular/pedestrian conflicts that exist today.

## TRAFFIC STUDY SCOPE

**Overview.** Given the subject proposal will effectively reduce the existing student design capacity by approximately 182 students [=1,050 students (proposed) – 1,232 students (existing)], the subject proposal will not intensity the site beyond existing design capacity conditions. As a result,



the subject scope of work outlines a limited traffic study to evaluate key elements discussed at the scoping meeting held on January 20, 2023.

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

- Existing Year: 2023

**B. Study Intersections (see ATTACHMENT I)**

1. Dranesville Drive/North Site Entrance
2. Dranesville Drive/South Site Entrance

Peak period traffic counts will be collected on a typical weekday (Tuesday, Wednesday, or Thursday) from 6 AM to 9 AM and 2 PM to 5 PM when public schools are in full-day session. Peak period intersection traffic counts will include vehicular, school bus, pedestrian, and bicycle counts.

**C. Trip Generation**

The existing (current enrollment & existing design capacity) and proposed (proposed design capacity) vehicular trip generation estimates as estimated by the Institute of Traffic Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> edition are shown in **ATTACHMENT 4**. The traffic study will amend the ITE trip generation assessment by documenting the measured vehicular trip generation based on existing traffic counts and day-of attendance of the Herndon Elementary School. No trip adjustment factors are assumed for this traffic study.

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

The Synchro capacity analysis software (Version 11) will be used to analyze the aforementioned intersections based on existing and future conditions during the key AM peak hour of the adjacent street and the PM peak hour of the Generator. Future conditions will be forecasted solely by reassigning the measured existing traffic to the proposed circulation layout. If the traffic analysis indicates volumes exceeding capacity, SimTraffic will be used to calculate queueing.

**E. Currently Programmed or Planned Traffic Improvements**

No future planned improvements were identified in the general vicinity of the site, there for no future improvements will be considered beyond the proposed site access layout.

# WELLS + ASSOCIATES

## F. Critical Points for the Traffic

Given the proposal will de-intensify the site by reducing the site's existing student design capacity, no critical points for the traffic were identified.

## G. Other Developments nearby which should be considered in the Traffic Study

- In the immediate vicinity of the site, there are no other future off-site developments and/or regional growth factors that were identified for this limited traffic study scope.

## H. Special Considerations

- Town of Herndon staff will confirm the Town's roadway classification for Dranesville Road within the immediate vicinity of the site.
- The traffic study will evaluate the existing site driveways against VDOT's minimum spacing requirements based on VDOT's Road Design Manual.
- If the traffic study finds the existing site driveways do not meet minimum spacing requirements, an access management exception will be filed under separate cover if requested by the Town to justify the long-standing substandard condition.
- The traffic study will summarize the proposed access layout as compared to the existing condition.
- The traffic study will discuss relative impacts to off-site intersections located outside of the study area intersections.
- The traffic study will document any available crash data that might be available via VDOT and/or the Town of Herndon at the study intersections.

### Concurrence with Proposed Scope of Work.

SIGNED:



Local Government Representative

DATE: 2/2/23

PRINT NAME: Bryce A. Perry, Deputy Director, Community Development  
Local Government Representative

**WELLS + ASSOCIATES**

Feel free to call or email me at 703-676-3652 or [krfellin@wellsandassociates.com](mailto:krfellin@wellsandassociates.com) with any questions and/or comments.

Sincerely,



Kevin R. Fellin, P.E.  
Principal





ATTACHMENT I

300 ft

PARK AVE

DRANESVILLE RD  
(ROUTE 2492)

1

2

HERNDON  
ELEMENTARY  
SCHOOL

FILLMORE ST

Google Earth





Rinker Design Associates, P.C.  
11100 Endeavor Court, Suite 200, Manassas, VA 20109  
Telephone: (703) 368-7373 www.rinker.com  
Engineering • Surveying • Transportation • Environmental Services

EXISTING CONDITIONS

RENOVATION & ADDITION

DRAKESVILLE ELEMENTARY SCHOOL

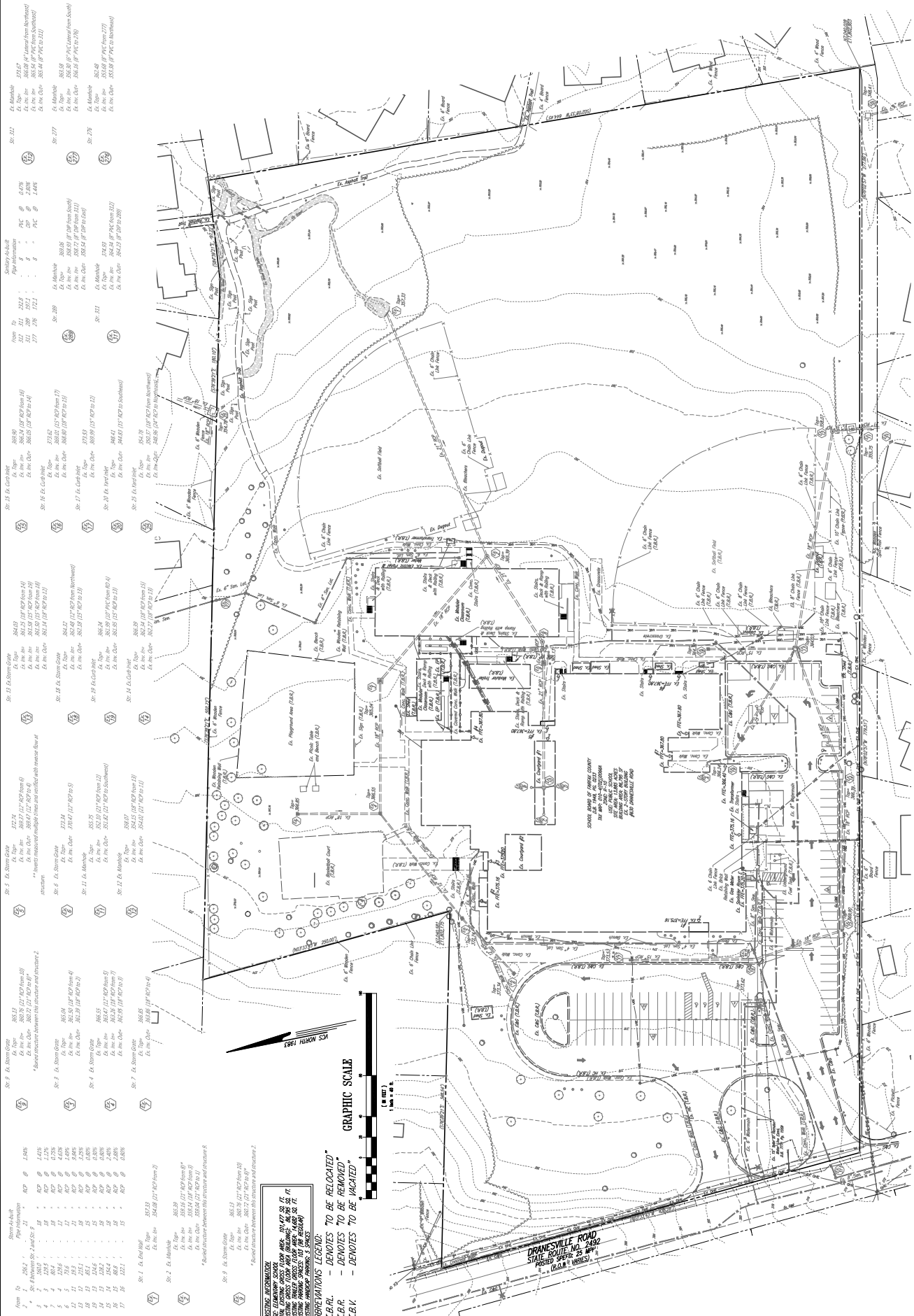
DRAKESVILLE ELEMENTARY SCHOOL

REVISIONS:

2/29/22-40 SUBMISSION

PLAN DATE: AUGUST 24, 2022  
DESIGN BY: AG, TP, BP  
CHECKED BY: JSC  
ARCHITECT: Cooper Corp.  
JURISDICTIONAL PLAN NO.  
SHEET NUMBER: 22029-001

APPENDIX A



ABBREVIATIONS LEGEND:  
T&E - TO BE RELOCATED  
T&E - TO BE REMOVED  
T&E - TO BE VACATED

EXISTING INFORMATION  
1. EXISTING STRUCTURES: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 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2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156,





Table 1  
Herndon Elementary School  
Site Trip Generation Summary (1)

| Scenario                                                                     | ITE Land Use      | Land Use Code | Amount |          | Units | Weekday                       |       |       |                        |       |       |                  |      |       |                                     |      |       |             |
|------------------------------------------------------------------------------|-------------------|---------------|--------|----------|-------|-------------------------------|-------|-------|------------------------|-------|-------|------------------|------|-------|-------------------------------------|------|-------|-------------|
|                                                                              |                   |               |        |          |       | AM Peak Hour of the Generator |       |       | of the Adjacent Street |       |       | of the Generator |      |       | PM Peak Hour of the Adjacent Street |      |       | Daily Trips |
|                                                                              |                   |               |        |          |       | In                            | Out   | Total | In                     | Out   | Total | In               | Out  | Total | In                                  | Out  | Total |             |
| Current Enrollment                                                           | Elementary School | 520           | 754    | Students | 306   | 260                           | 566   | 301   | 257                    | 558   | 156   | 184              | 340  | 56    | 65                                  | 121  | 1,712 |             |
| Existing Design Capacity<br>(incl. modulars & 2-duplexes)                    | Elementary School | 520           | 1,232  | Students | 499   | 425                           | 924   | 492   | 420                    | 912   | 255   | 300              | 555  | 91    | 107                                 | 198  | 2,797 |             |
| Proposed Design Capacity                                                     | Elementary School | 520           | 1,050  | Students | 426   | 362                           | 788   | 420   | 357                    | 777   | 218   | 255              | 473  | 77    | 91                                  | 168  | 2,384 |             |
| Difference (Proposed Design Capacity minus <u>Current Enrollment</u> )       |                   |               | 296    | Students | 120   | 102                           | 222   | 119   | 100                    | 219   | 62    | 71               | 133  | 21    | 26                                  | 47   | 672   |             |
| Difference (Proposed Design Capacity minus <u>Existing Design Capacity</u> ) |                   |               | (182)  | Students | (73)  | (63)                          | (136) | (72)  | (63)                   | (135) | (37)  | (45)             | (82) | (14)  | (16)                                | (30) | (413) |             |

Note(s):

(1) Trip generation based on the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition.



# WELLS + ASSOCIATES

## MEMORANDUM

**To:** Ben Schitter, RLA  
Development Program Planner  
Town of Herndon

**From:** Kevin R. Fellin, P.E.

**RE:** Herndon Elementary School – Traffic Study (1<sup>st</sup> Submission)  
SE#23-01

**Subject:** Responses to the Town’s Traffic Study Comments

**Date:** October 4, 2023

11220 Assett Loop  
Suite 202  
Manassas, Virginia 20109  
703-365-9262  
703-917-0739 FAX

[www.WellsandAssociates.com](http://www.WellsandAssociates.com)

This memorandum serves as a response to each of the Town of Herndon’s comments based on their review of the 1<sup>st</sup> submission Traffic Study dated March 28, 2023 as prepared by Wells + Associates, Inc. (W+A). A copy of the Town’s comment letter dated July 24, 2023 is included as **Attachment I**. Each comment is reproduced below along with a response:

**Comment 1:** Ensure all computations are coordinated between the traffic study and Special Exception. The existing enrollment and existing gross floor area listed on the traffic study do not match those on the SE.

**Response 1:** The traffic study will be resubmitted to reflect 15,264 GSF for the existing outdoor trailers/modular classrooms to be removed as shown in the SE versus 14,682 GSF as shown in the traffic study. It should be noted that difference between the traffic study and SE is only 582 SF which has no appreciable impact to the traffic study results. The traffic study evaluates the vehicular trip generation for the school based on number of students, not floor area.

The current student enrollment of 805 students that was referenced in the traffic study correlates to the school’s current student enrollment at the time the traffic counts were collected. This will be clarified in the revised traffic study.

Transportation Consultants  
INNOVATION + SOLUTIONS



## WELLS + ASSOCIATES

### MEMORANDUM

**Comment 2:** In the traffic study, explain why the student capacity is reduced with the proposed conditions even though there is an increase in gross floor area. The Special Exception will need to provide a condition that limits the student enrollment to the design capacity.

**Response 2:** As part of the “Purpose” narrative on page 1 of the traffic study, it states “the renovation project would remove existing trailer/modular educational space that currently serves the school and replace it with new permanent building area as part of a comprehensive renovation project that will bring the overall Herndon Elementary School up to applicable building code standards and educational requirements.”

In other words, the removed existing trailer/modular classroom space that serves existing student capacity numbers will in part not be replaced with the new permanent building area that is proposed to be added to support educational requirements. This results in fewer students in terms of student capacity. Additional language will be provided in the revised traffic study for additional clarification.

The Special Exception will include a condition that limits student enrollment to the design capacity subject to FCPS confirmation.

**Comment 3:** The analysis states that the current kiss n’ ride backup onto Dranesville is beyond 400’ in the southbound lane and does not provide the backup distance on the northbound lane. Please verify, based on the on-site video data collected, how long the backup is on the northbound lane and how far past 400’ the backup is on the southbound lane.

**Response 3:** The revised submission of the traffic study will expand the analysis description to referenced video observations for northbound lane queues. Under Section 3 of the traffic study, there was assessment of existing conditions based on video footage that identified the critical queues approaching the main site driveway approached from the north (southbound queues).

Based on the AM Peak Period assessment of the video footage, on Page 20 under the “9:10 AM” field note, it described the northbound Dranesville Road approach to remain generally minimal when compared to the southbound queues.

Based on the PM Peak Period assessment of the video footage, on Page 27 under the “4:07 PM” field note, it described the northbound Dranesville Road approach to be limited to approximately five (5) vehicles.





## WELLS + ASSOCIATES

### MEMORANDUM

Based on the field observations, the primary vehicle queue was identified to occur on Dranesville Road's southbound approach to the school's driveway which received repeated emphasis under the "Analysis of Existing Conditions" section of the traffic study on Page 41. On the bottom of Page 37 of the traffic study, the Synchro analysis results were described as evaluating a full peak hour which was not reflective of the actual peak field conditions that are limited to a 15 to 20-minute period. This was the primary purpose for making video field observations to supplement the Synchro analysis results.

Given the limitations of video footage in the original traffic study to fully document the existing southbound back-of-queue, a supplemental field observation was undertaken on Thursday, September 28, 2023 in coordination the Town of Herndon staff. The supplemental field observation confirmed that the southbound vehicle queues on Dranesville Road do not extend to, nor exceed 400 feet. It will also be noted that the previous observed traffic attendant in February 2023 has been replaced by a police officer. The revised traffic study will include a summary of the supplemental field observation.

**Comment 4:** With the verifications requested on the previous comment, please identify and assess the reduced backups onto Dranesville for both lanes based on the proposed site circulation improvements on-site.

**Response 4:** The "Proposed Operations" section on Page 30 of the traffic study provides a summary of the resulting transportation and queuing improvements that would be realized with the proposed layout. Figure 3-1 on page 31 will be revised to quantify that the on-site queuing would increase from approximately 28 vehicles under current conditions to approximately 60 vehicles under the proposed conditions.

Based on the requested supplemental field verification, it will be noted in the revised traffic study that the on-site site improvements that will effectively provide approximately 600 feet of additional on-site vehicle queuing (or 32 additional vehicles) is anticipated to contain the observed vehicle queues of 400 feet or less.

Providing additional on-site queueing along with the described operational improvements on Page 30 will further support improving the short-term traffic disruptions along Dranesville Road that occur today. The key operational improvements as documented in the traffic study are reproduced below:

- 1) The internal site layout will be modified to meet FCPS' current standards by physically separating the bus circulation area from the student drop-off/pick-up area thereby eliminating vehicular conflicts and improving safety between these key users.

**WELLS + ASSOCIATES****MEMORANDUM**

- 2) Pedestrian circulation will be enhanced by eliminating the key internal vehicular/pedestrian conflicts that exist today between pedestrians and entering school bus traffic.
- 3) The on-site vehicle stacking distance will be improved for a relocated student drop-off/pick-up area. The number of vehicles that are able to stack on-site will be increased from approximately 28 vehicles to 61 vehicles. This will provide stacking for approximately 33 more vehicles than realized today.
- 4) School buses will now have their own dedicated ingress lane at the site's northern driveway.
- 5) Departing drop-off and pick-up vehicles will be able to efficiently leave the site and will no longer be required to yield to entering school buses. This will serve to improve exiting traffic flow and thereby reduce the length and duration that off-site vehicle queues occur on Dranesville Road.
- 6) Reduced vehicle queues on-site will improve the short-term traffic disruptions along Dranesville Road.

We trust that the responses provided in this memorandum address the Town's comments on the 1st submission traffic study. Any questions or requests for clarification should be directed to Kevin Fellin at [krfellin@wellsandassociates.com](mailto:krfellin@wellsandassociates.com) or 703.676.3652.

July 24, 2023

Najib Hameed, Coordinator III  
Fairfax County Public Schools  
8115 Gatehouse Road, Suite 3400  
Falls Church, VA 22042

**RE: Herndon Elementary School, SE #23-01, Traffic Study, 1<sup>st</sup> Submission**

Dear Najib Hameed:

Town staff has completed its review of the first submission of the Herndon Elementary School Special Exception Traffic Study and provides you with the following comments.

**Traffic Study Comments:**

1. Ensure all computations are coordinated between the traffic study and Special Exception. The existing enrollment and existing gross floor area listed on the traffic study do not match those on the SE.
2. In the traffic study, explain why the student capacity is reduced with the proposed conditions even though there is an increase in gross floor area. The Special Exception will need to provide a condition that limits the student enrollment to the design capacity.
3. The analysis states that the current kiss n' ride backup onto Dranesville is beyond 400' in the southbound lane and does not provide the backup distance on the northbound lane. Please verify, based on the on-site video data collected, how long the backup is on the northbound lane and how far past 400' the backup is on the southbound lane.
4. With the verifications requested on the previous comment, please identify and assess the reduced backups onto Dranesville for both lanes based on the proposed site circulation improvements on-site.

Once you and the development team have reviewed these comments, please let me know if you would like to meet to discuss any of the comments.

Sincerely,



Ben Schitter, RLA  
Development Program Planner



## **APPENDIX B**

### **LEVELS OF SERVICE DESCRIPTIONS**

### 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<br>(sec/veh) |
|------------------|------------------------------------|
| A                | $\leq 10$                          |
| 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 COUNT DATA**



# Wells + Associates, Inc

Tysons, Virginia

## Turning Movement Count - Total Vehicles

| <b>PROJECT:</b> Herndon ES                                 |                                | <b>DATE:</b> 2/1/2023   |      | <b>SOUTHBOUND ROAD:</b> Dranesville road       |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
|------------------------------------------------------------|--------------------------------|-------------------------|------|------------------------------------------------|-------|--------------------------------------|-------|------|------|--------|--------------------------------|-----|-------|------|------|----------------|-------|-----|-------|------|-------------------------|--------|-------|-----|-------|------|-----|
| <b>W+A JOB NO:</b> 8996                                    |                                | <b>DAY:</b> Wednesday   |      | <b>NORTHBOUND ROAD:</b> Dranesville road       |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| <b>INTERSECTION:</b> Dranesville Rd. & School Entr.- North |                                | <b>WEATHER:</b> clear   |      | <b>WESTBOUND ROAD:</b> School Entrance - North |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| <b>LOCATION:</b> Fairfax County,VA                         |                                | <b>COUNTED BY:</b> Agan |      | <b>EASTBOUND ROAD:</b> 0                       |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| <b>INPUTED BY:</b> agan                                    |                                |                         |      |                                                |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| Time Period                                                | Southbound<br>Dranesville road |                         |      |                                                |       | Westbound<br>School Entrance - North |       |      |      |        | Northbound<br>Dranesville road |     |       |      |      | Eastbound<br>0 |       |     |       |      | North East<br>& & Total |        |       |     |       |      |     |
|                                                            | Right                          | Thru                    | Left | U-Turn                                         | Total | PHF                                  | Right | Thru | Left | U-Turn | Total                          | PHF | Right | Thru | Left | U-Turn         | Total | PHF | Right | Thru | Left                    | U-Turn | Total | PHF | South | West |     |
| <b>15 Minute Volumes</b>                                   |                                |                         |      |                                                |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| 8:00 AM - 8:15 AM                                          | 0                              | 25                      | 0    | 0                                              | 25    |                                      | 4     | 0    | 1    | 0      | 5                              |     | 0     | 7    | 0    | 0              | 7     |     | 0     | 0    | 0                       | 0      | 0     |     | 32    | 5    | 37  |
| 8:15 AM - 8:30 AM                                          | 0                              | 14                      | 0    | 0                                              | 14    |                                      | 3     | 0    | 0    | 0      | 3                              |     | 0     | 14   | 0    | 0              | 14    |     | 0     | 0    | 0                       | 0      | 0     |     | 28    | 3    | 31  |
| 8:30 AM - 8:45 AM                                          | 0                              | 39                      | 0    | 0                                              | 39    |                                      | 2     | 0    | 1    | 0      | 3                              |     | 0     | 6    | 0    | 0              | 6     |     | 0     | 0    | 0                       | 0      | 0     |     | 45    | 3    | 48  |
| 8:45 AM - 9:00 AM                                          | 0                              | 30                      | 0    | 0                                              | 30    |                                      | 3     | 0    | 0    | 0      | 3                              |     | 0     | 10   | 0    | 0              | 10    |     | 0     | 0    | 0                       | 0      | 0     |     | 40    | 3    | 43  |
| 9:00 AM - 9:15 AM                                          | 0                              | 39                      | 0    | 0                                              | 39    |                                      | 9     | 0    | 1    | 0      | 10                             |     | 0     | 32   | 0    | 0              | 32    |     | 0     | 0    | 0                       | 0      | 0     |     | 71    | 10   | 81  |
| 9:15 AM - 9:30 AM                                          | 0                              | 20                      | 0    | 0                                              | 20    |                                      | 4     | 0    | 3    | 0      | 7                              |     | 0     | 34   | 0    | 0              | 34    |     | 0     | 0    | 0                       | 0      | 0     |     | 54    | 7    | 61  |
| 9:30 AM - 9:45 AM                                          | 0                              | 12                      | 0    | 0                                              | 12    |                                      | 2     | 0    | 1    | 0      | 3                              |     | 0     | 6    | 0    | 0              | 6     |     | 0     | 0    | 0                       | 0      | 0     |     | 18    | 3    | 21  |
| 9:45 AM - 10:00 AM                                         | 0                              | 7                       | 0    | 0                                              | 7     |                                      | 3     | 0    | 3    | 0      | 6                              |     | 0     | 4    | 0    | 0              | 4     |     | 0     | 0    | 0                       | 0      | 0     |     | 11    | 6    | 17  |
| 10:00 AM - 10:15 AM                                        | 0                              | 3                       | 0    | 0                                              | 3     |                                      | 0     | 0    | 2    | 0      | 2                              |     | 0     | 6    | 0    | 0              | 6     |     | 0     | 0    | 0                       | 0      | 0     |     | 9     | 2    | 11  |
| 10:15 AM - 10:30 AM                                        | 0                              | 3                       | 0    | 0                                              | 3     |                                      | 0     | 0    | 0    | 0      | 0                              |     | 0     | 3    | 0    | 0              | 3     |     | 0     | 0    | 0                       | 0      | 0     |     | 6     | 0    | 6   |
| 10:30 AM - 10:45 AM                                        | 0                              | 7                       | 0    | 0                                              | 7     |                                      | 1     | 0    | 0    | 0      | 1                              |     | 0     | 5    | 0    | 0              | 5     |     | 0     | 0    | 0                       | 0      | 0     |     | 12    | 1    | 13  |
| 10:45 AM - 11:00 AM                                        | 0                              | 6                       | 0    | 0                                              | 6     |                                      | 1     | 0    | 3    | 0      | 4                              |     | 0     | 2    | 0    | 0              | 2     |     | 0     | 0    | 0                       | 0      | 0     |     | 8     | 4    | 12  |
| 2:30 PM - 2:45 PM                                          | 0                              | 6                       | 0    | 0                                              | 6     |                                      | 0     | 0    | 0    | 0      | 0                              |     | 0     | 5    | 0    | 0              | 5     |     | 0     | 0    | 0                       | 0      | 0     |     | 11    | 0    | 11  |
| 2:45 PM - 3:00 PM                                          | 0                              | 5                       | 0    | 0                                              | 5     |                                      | 1     | 0    | 0    | 0      | 1                              |     | 0     | 3    | 0    | 0              | 3     |     | 0     | 0    | 0                       | 0      | 0     |     | 8     | 1    | 9   |
| 3:00 PM - 3:15 PM                                          | 0                              | 13                      | 0    | 0                                              | 13    |                                      | 1     | 0    | 1    | 0      | 2                              |     | 0     | 6    | 0    | 0              | 6     |     | 0     | 0    | 0                       | 0      | 0     |     | 19    | 2    | 21  |
| 3:15 PM - 3:30 PM                                          | 0                              | 10                      | 0    | 0                                              | 10    |                                      | 1     | 0    | 0    | 0      | 1                              |     | 0     | 3    | 0    | 0              | 3     |     | 0     | 0    | 0                       | 0      | 0     |     | 13    | 1    | 14  |
| 3:30 PM - 3:45 PM                                          | 0                              | 19                      | 0    | 0                                              | 19    |                                      | 0     | 0    | 1    | 0      | 1                              |     | 0     | 12   | 0    | 0              | 12    |     | 0     | 0    | 0                       | 0      | 0     |     | 31    | 1    | 32  |
| 3:45 PM - 4:00 PM                                          | 0                              | 20                      | 0    | 0                                              | 20    |                                      | 3     | 0    | 0    | 0      | 3                              |     | 0     | 5    | 0    | 0              | 5     |     | 0     | 0    | 0                       | 0      | 0     |     | 25    | 3    | 28  |
| 4:00 PM - 4:15 PM                                          | 0                              | 22                      | 0    | 0                                              | 22    |                                      | 5     | 0    | 2    | 0      | 7                              |     | 0     | 26   | 0    | 0              | 26    |     | 0     | 0    | 0                       | 0      | 0     |     | 48    | 7    | 55  |
| 4:15 PM - 4:30 PM                                          | 0                              | 15                      | 0    | 0                                              | 15    |                                      | 10    | 0    | 5    | 0      | 15                             |     | 0     | 32   | 0    | 0              | 32    |     | 0     | 0    | 0                       | 0      | 0     |     | 47    | 15   | 62  |
| 4:30 PM - 4:45 PM                                          | 0                              | 16                      | 0    | 0                                              | 16    |                                      | 2     | 0    | 3    | 0      | 5                              |     | 0     | 22   | 0    | 0              | 22    |     | 0     | 0    | 0                       | 0      | 0     |     | 38    | 5    | 43  |
| 4:45 PM - 5:00 PM                                          | 0                              | 4                       | 0    | 0                                              | 4     |                                      | 4     | 0    | 3    | 0      | 7                              |     | 0     | 9    | 0    | 0              | 9     |     | 0     | 0    | 0                       | 0      | 0     |     | 13    | 7    | 20  |
| 5:00 PM - 5:15 PM                                          | 0                              | 6                       | 0    | 0                                              | 6     |                                      | 0     | 0    | 2    | 0      | 2                              |     | 0     | 11   | 0    | 0              | 11    |     | 0     | 0    | 0                       | 0      | 0     |     | 17    | 2    | 19  |
| 5:15 PM - 5:30 PM                                          | 0                              | 11                      | 0    | 0                                              | 11    |                                      | 2     | 0    | 0    | 0      | 2                              |     | 0     | 6    | 0    | 0              | 6     |     | 0     | 0    | 0                       | 0      | 0     |     | 17    | 2    | 19  |
| Total                                                      | 0                              | 352                     | 0    | 0                                              | 352   |                                      | 61    | 0    | 32   | 0      | 93                             |     | 0     | 269  | 0    | 0              | 269   |     | 0     | 0    | 0                       | 0      | 0     |     | 621   | 93   | 714 |
| <b>One Hour Volumes</b>                                    |                                |                         |      |                                                |       |                                      |       |      |      |        |                                |     |       |      |      |                |       |     |       |      |                         |        |       |     |       |      |     |
| 8:00 AM - 9:00 AM                                          | 0                              | 108                     | 0    | 0                                              | 108   | 0.7                                  | 12    | 0    | 2    | 0      | 14                             | 0.7 | 0     | 37   | 0    | 0              | 37    | 0.7 | 0     | 0    | 0                       | 0      | 0     |     | 145   | 14   | 159 |
| 8:15 AM - 9:15 AM                                          | 0                              | 122                     | 0    | 0                                              | 122   | 0.8                                  | 17    | 0    | 2    | 0      | 19                             | 0.5 | 0     | 62   | 0    | 0              | 62    | 0.5 | 0     | 0    | 0                       | 0      | 0     |     | 184   | 19   | 203 |
| 8:30 AM - 9:30 AM                                          | 0                              | 128                     | 0    | 0                                              | 128   | 0.8                                  | 18    | 0    | 5    | 0      | 23                             | 0.6 | 0     | 82   | 0    | 0              | 82    | 0.6 | 0     | 0    | 0                       | 0      | 0     |     | 210   | 23   | 233 |
| 8:45 AM - 9:45 AM                                          | 0                              | 101                     | 0    | 0                                              | 101   | 0.6                                  | 18    | 0    | 5    | 0      | 23                             | 0.6 | 0     | 82   | 0    | 0              | 82    | 0.6 | 0     | 0    | 0                       | 0      | 0     |     | 183   | 23   | 206 |
| 9:00 AM - 10:00 AM                                         | 0                              | 78                      | 0    | 0                                              | 78    | 0.5                                  | 18    | 0    | 8    | 0      | 26                             | 0.7 | 0     | 76   | 0    | 0              | 76    | 0.6 | 0     | 0    | 0                       | 0      | 0     |     | 154   | 26   | 180 |
| 9:15 AM - 10:15 AM                                         | 0                              | 42                      | 0    | 0                                              | 42    | 0.5                                  | 9     | 0    | 9    | 0      | 18                             | 0.6 | 0     | 50   | 0    | 0              | 50    | 0.4 | 0     | 0    | 0                       | 0      | 0     |     | 92    | 18   | 110 |
| 9:30 AM - 10:30 AM                                         | 0                              | 25                      | 0    | 0                                              | 25    | 0.5                                  | 5     | 0    | 6    | 0      | 11                             | 0.5 | 0     | 19   | 0    | 0              | 19    | 0.8 | 0     | 0    | 0                       | 0      | 0     |     | 44    | 11   | 55  |
| 9:45 AM - 10:45 AM                                         | 0                              | 20                      | 0    | 0                                              | 20    | 0.7                                  | 4     | 0    | 5    | 0      | 9                              | 0.4 | 0     | 18   | 0    | 0              | 18    | 0.8 | 0     | 0    | 0                       | 0      | 0     |     | 38    | 9    | 47  |
| 10:00 AM - 11:00 AM                                        | 0                              | 19                      | 0    | 0                                              | 19    | 0.7                                  | 2     | 0    | 5    | 0      | 7                              | 0.4 | 0     | 16   | 0    | 0              | 16    | 0.7 | 0     | 0    | 0                       | 0      | 0     |     | 35    | 7    | 42  |
| 2:30 PM - 3:30 PM                                          | 0                              | 34                      | 0    | 0                                              | 34    | 0.7                                  | 3     | 0    | 1    | 0      | 4                              | 0.5 | 0     | 17   | 0    | 0              | 17    | 0.7 | 0     | 0    | 0                       | 0      | 0     |     | 51    | 4    | 55  |
| 2:45 PM - 3:45 PM                                          | 0                              | 47                      | 0    | 0                                              | 47    | 0.6                                  | 3     | 0    | 2    | 0      | 5                              | 0.6 | 0     | 24   | 0    | 0              | 24    | 0.5 | 0     | 0    | 0                       | 0      | 0     |     | 71    | 5    | 76  |
| 3:00 PM - 4:00 PM                                          | 0                              | 62                      | 0    | 0                                              | 62    | 0.8                                  | 5     | 0    | 2    | 0      | 7                              | 0.6 | 0     | 26   | 0    | 0              | 26    | 0.5 | 0     | 0    | 0                       | 0      | 0     |     | 88    | 7    | 95  |
| 3:15 PM - 4:15 PM                                          | 0                              | 71                      | 0    | 0                                              | 71    | 0.8                                  | 9     | 0    | 3    | 0      | 12                             | 0.4 | 0     | 46   | 0    | 0              | 46    | 0.4 | 0     | 0    | 0                       | 0      | 0     |     | 117   | 12   | 129 |
| 3:30 PM - 4:30 PM                                          | 0                              | 76                      | 0    | 0                                              | 76    | 0.9                                  | 18    | 0    | 8    | 0      | 26                             | 0.4 | 0     | 75   | 0    | 0              | 75    | 0.6 | 0     | 0    | 0                       | 0      | 0     |     | 151   | 26   | 177 |
| 3:45 PM - 4:45 PM                                          | 0                              | 73                      | 0    | 0                                              | 73    | 0.8                                  | 20    | 0    | 10   | 0      | 30                             | 0.5 | 0     | 85   | 0    | 0              | 85    | 0.7 | 0     | 0    | 0                       | 0      | 0     |     | 158   | 30   | 188 |
| 4:00 PM - 5:00 PM                                          | 0                              | 57                      | 0    | 0                                              | 57    | 0.6                                  | 21    | 0    | 13   | 0      | 34                             | 0.6 | 0     | 89   | 0    | 0              | 89    | 0.7 | 0     | 0    | 0                       | 0      | 0     |     | 146   | 34   | 180 |
| 4:15 PM - 5:15 PM                                          | 0                              | 41                      | 0    | 0                                              | 41    | 0.6                                  | 16    | 0    | 13   | 0      | 29                             | 0.5 | 0     | 74   | 0    | 0              | 74    | 0.6 | 0     | 0    | 0                       | 0      | 0     |     | 115   | 29   | 144 |
| 4:30 PM - 5:30 PM                                          | 0                              | 37                      | 0    | 0                                              | 37    | 0.6                                  | 8     | 0    | 8    | 0      | 16                             | 0.6 | 0     | 48   | 0    | 0              | 48    | 0.5 | 0     | 0    | 0                       | 0      | 0     |     | 85    | 16   | 101 |

# Wells + Associates, Inc.

Tysons, Virginia

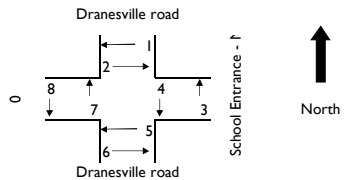
## Turning Movement Count - Bicycles

| <b>PROJECT:</b> Herndon ES                             |                                | <b>DATE:</b> 2/1/2023   |      | <b>SOUTHBOUND ROAD:</b> Dranesville road       |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
|--------------------------------------------------------|--------------------------------|-------------------------|------|------------------------------------------------|--------------------------------------|------|------|-------|--------------------------------|------|------|-------|----------------|------|------|-------|----------------------------|------|
| <b>W+A JOB NO:</b> 8996                                |                                | <b>DAY:</b> Wednesday   |      | <b>ORTHBOUND ROAD:</b> Dranesville road        |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| <b>INTERSECTION:</b> Dranesville Rd. & School Entrance |                                | <b>WEATHER:</b> clear   |      | <b>WESTBOUND ROAD:</b> School Entrance - North |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| <b>LOCATION:</b> Fairfax County,VA                     |                                | <b>COUNTED BY:</b> Agan |      | <b>EASTBOUND ROAD:</b> 0                       |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
|                                                        |                                | <b>INPUTED BY:</b> agan |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| Time<br>Period                                         | Southbound<br>Dranesville road |                         |      |                                                | Westbound<br>School Entrance - North |      |      |       | Northbound<br>Dranesville road |      |      |       | Eastbound<br>0 |      |      |       | North<br>& East<br>& Total |      |
|                                                        | Right                          | Thru                    | Left | Total                                          | Right                                | Thru | Left | Total | Right                          | Thru | Left | Total | Right          | Thru | Left | Total | South                      | West |
| <b>15 Minute Volumes</b>                               |                                |                         |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| 8:00 AM - 8:15 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:15 AM - 8:30 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:30 AM - 8:45 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:45 AM - 9:00 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:00 AM - 9:15 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                | 2    |      | 2     |                |      |      | 0     | 2                          | 2    |
| 9:15 AM - 9:30 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:30 AM - 9:45 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:45 AM - 10:00 AM                                     |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:00 AM - 10:15 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:15 AM - 10:30 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:30 AM - 10:45 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:45 AM - 11:00 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 2:30 PM - 2:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 2:45 PM - 3:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:00 PM - 3:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:15 PM - 3:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:30 PM - 3:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:45 PM - 4:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:00 PM - 4:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:15 PM - 4:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:30 PM - 4:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:45 PM - 5:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 5:00 PM - 5:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 5:15 PM - 5:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| Total                                                  | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 0     | 2              | 0    | 0    | 0     | 2                          | 2    |
| <b>One Hour Volumes</b>                                |                                |                         |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| 8:00 AM - 9:00 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 8:15 AM - 9:15 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 0     | 2              | 0    | 0    | 0     | 2                          | 2    |
| 8:30 AM - 9:30 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 0     | 2              | 0    | 0    | 0     | 2                          | 2    |
| 8:45 AM - 9:45 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 0     | 2              | 0    | 0    | 0     | 2                          | 2    |
| 9:00 AM - 10:00 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 0     | 2              | 0    | 0    | 0     | 2                          | 2    |
| 9:15 AM - 10:15 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 9:30 AM - 10:30 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 9:45 AM - 10:45 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 10:00 AM - 11:00 AM                                    | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 2:30 PM - 3:30 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 2:45 PM - 3:45 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:00 PM - 4:00 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:15 PM - 4:15 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:30 PM - 4:30 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:45 PM - 4:45 PM                                      | 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    |
| 4:15 PM - 5:15 PM                                      | 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    |

# Wells + Associates, Inc.

Tysons, Virginia

## Pedestrian Volume Survey

| <b>PROJECT:</b> Herndon ES |    | <b>W + A JOB NO:</b> 8996 |    | <b>INTERSECTION:</b> Dranesville Rd. & School Entr.- Nc |   | <b>LOCATION:</b> Fairfax County,VA |   | <b>DATE:</b> 2/1/2023 |    | <b>DAY:</b> Wednesday |       | <b>WEATHER:</b> clear |       | <b>COUNTED BY:</b> Agan |  | <b>INPUTED BY:</b> agan |  |  |  |
|----------------------------|----|---------------------------|----|---------------------------------------------------------|---|------------------------------------|---|-----------------------|----|-----------------------|-------|-----------------------|-------|-------------------------|--|-------------------------|--|------------------------------------------------------------------------------------|--|
|                            |    |                           |    |                                                         |   |                                    |   |                       |    |                       |       |                       |       |                         |  |                         |  |                                                                                    |  |
| Time Period                |    | Movement                  |    |                                                         |   |                                    |   |                       |    | 1 + 2                 | 3 + 4 | 5 + 6                 | 7 + 8 | Total                   |  |                         |  |                                                                                    |  |
| 1                          | 2  | 3                         | 4  | 5                                                       | 6 | 7                                  | 8 |                       |    |                       |       |                       |       |                         |  |                         |  |                                                                                    |  |
| <b>15 Minute Volumes</b>   |    |                           |    |                                                         |   |                                    |   |                       |    |                       |       |                       |       |                         |  |                         |  |                                                                                    |  |
| 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          |    |                           |    | 2                                                       |   |                                    |   | 1                     |    | 0                     | 2     | 0                     | 1     | 3                       |  |                         |  |                                                                                    |  |
| 8:45 AM - 9:00 AM          |    |                           |    | 4                                                       |   |                                    |   |                       |    | 0                     | 4     | 0                     | 0     | 4                       |  |                         |  |                                                                                    |  |
| 9:00 AM - 9:15 AM          |    |                           |    | 3                                                       |   |                                    |   |                       |    | 0                     | 3     | 0                     | 0     | 3                       |  |                         |  |                                                                                    |  |
| 9:15 AM - 9:30 AM          | 1  |                           | 2  |                                                         |   |                                    |   |                       |    | 1                     | 2     | 0                     | 0     | 3                       |  |                         |  |                                                                                    |  |
| 9:30 AM - 9:45 AM          |    |                           |    |                                                         |   |                                    | 1 | 1                     |    | 0                     | 0     | 0                     | 2     | 2                       |  |                         |  |                                                                                    |  |
| 9:45 AM - 10:00 AM         |    |                           |    |                                                         |   |                                    |   |                       |    | 0                     | 0     | 0                     | 0     | 0                       |  |                         |  |                                                                                    |  |
| 10:00 AM - 10:15 AM        |    |                           |    |                                                         |   |                                    |   |                       |    | 0                     | 0     | 0                     | 0     | 0                       |  |                         |  |                                                                                    |  |
| 10:15 AM - 10:30 AM        |    |                           |    |                                                         |   |                                    |   | 1                     |    | 0                     | 0     | 0                     | 1     | 1                       |  |                         |  |                                                                                    |  |
| 10:30 AM - 10:45 AM        |    |                           |    |                                                         |   |                                    |   |                       |    | 0                     | 0     | 0                     | 0     | 0                       |  |                         |  |                                                                                    |  |
| 10:45 AM - 11:00 AM        |    |                           |    |                                                         |   |                                    |   |                       |    | 0                     | 0     | 0                     | 0     | 0                       |  |                         |  |                                                                                    |  |
| 2:30 PM - 2:45 PM          |    |                           |    |                                                         |   |                                    |   |                       |    | 0                     | 0     | 0                     | 0     | 0                       |  |                         |  |                                                                                    |  |
| 2:45 PM - 3:00 PM          |    |                           |    |                                                         |   |                                    |   |                       | 1  | 0                     | 0     | 0                     | 1     | 1                       |  |                         |  |                                                                                    |  |
| 3:00 PM - 3:15 PM          | 1  |                           | 1  | 2                                                       |   |                                    |   | 2                     |    | 1                     | 3     | 0                     | 2     | 6                       |  |                         |  |                                                                                    |  |
| 3:15 PM - 3:30 PM          |    |                           |    | 6                                                       |   |                                    |   |                       |    | 0                     | 6     | 0                     | 0     | 6                       |  |                         |  |                                                                                    |  |
| 3:30 PM - 3:45 PM          |    |                           | 1  | 2                                                       |   |                                    |   |                       |    | 0                     | 3     | 0                     | 0     | 3                       |  |                         |  |                                                                                    |  |
| 3:45 PM - 4:00 PM          | 6  | 1                         |    | 1                                                       |   |                                    |   |                       |    | 7                     | 1     | 0                     | 0     | 8                       |  |                         |  |                                                                                    |  |
| 4:00 PM - 4:15 PM          | 3  | 1                         | 2  | 5                                                       |   |                                    |   |                       |    | 4                     | 7     | 0                     | 0     | 11                      |  |                         |  |                                                                                    |  |
| 4:15 PM - 4:30 PM          |    |                           | 1  |                                                         |   |                                    |   |                       |    | 0                     | 1     | 0                     | 0     | 1                       |  |                         |  |                                                                                    |  |
| 4:30 PM - 4:45 PM          |    |                           |    | 1                                                       |   |                                    |   | 2                     |    | 0                     | 1     | 0                     | 2     | 3                       |  |                         |  |                                                                                    |  |
| 4:45 PM - 5:00 PM          |    |                           | 2  | 1                                                       |   |                                    | 1 | 2                     |    | 0                     | 3     | 0                     | 3     | 6                       |  |                         |  |                                                                                    |  |
| 5:00 PM - 5:15 PM          | 1  |                           | 3  |                                                         |   |                                    |   | 1                     |    | 1                     | 3     | 0                     | 1     | 5                       |  |                         |  |                                                                                    |  |
| 5:15 PM - 5:30 PM          |    |                           |    |                                                         |   |                                    | 1 | 1                     |    | 0                     | 0     | 0                     | 2     | 2                       |  |                         |  |                                                                                    |  |
| Total                      | 12 | 2                         | 12 | 27                                                      | 0 | 0                                  | 3 | 12                    | 14 | 39                    | 0     | 15                    | 68    |                         |  |                         |  |                                                                                    |  |
| <b>One Hour Volumes</b>    |    |                           |    |                                                         |   |                                    |   |                       |    |                       |       |                       |       |                         |  |                         |  |                                                                                    |  |
| 8:00 AM - 9:00 AM          | 0  | 0                         | 0  | 6                                                       | 0 | 0                                  | 0 | 1                     | 0  | 6                     | 0     | 1                     | 7     |                         |  |                         |  |                                                                                    |  |
| 8:15 AM - 9:15 AM          | 0  | 0                         | 0  | 9                                                       | 0 | 0                                  | 0 | 1                     | 0  | 9                     | 0     | 1                     | 10    |                         |  |                         |  |                                                                                    |  |
| 8:30 AM - 9:30 AM          | 1  | 0                         | 2  | 9                                                       | 0 | 0                                  | 0 | 1                     | 1  | 11                    | 0     | 1                     | 13    |                         |  |                         |  |                                                                                    |  |
| 8:45 AM - 9:45 AM          | 1  | 0                         | 2  | 7                                                       | 0 | 0                                  | 1 | 1                     | 1  | 9                     | 0     | 2                     | 12    |                         |  |                         |  |                                                                                    |  |
| 9:00 AM - 10:00 AM         | 1  | 0                         | 2  | 3                                                       | 0 | 0                                  | 1 | 1                     | 1  | 5                     | 0     | 2                     | 8     |                         |  |                         |  |                                                                                    |  |
| 9:15 AM - 10:15 AM         | 1  | 0                         | 2  | 0                                                       | 0 | 0                                  | 1 | 1                     | 1  | 2                     | 0     | 2                     | 5     |                         |  |                         |  |                                                                                    |  |
| 9:30 AM - 10:30 AM         | 0  | 0                         | 0  | 0                                                       | 0 | 0                                  | 1 | 2                     | 0  | 0                     | 0     | 3                     | 3     |                         |  |                         |  |                                                                                    |  |
| 9:45 AM - 10:45 AM         | 0  | 0                         | 0  | 0                                                       | 0 | 0                                  | 0 | 1                     | 0  | 0                     | 0     | 1                     | 1     |                         |  |                         |  |                                                                                    |  |
| 10:00 AM - 11:00 AM        | 0  | 0                         | 0  | 0                                                       | 0 | 0                                  | 0 | 1                     | 0  | 0                     | 0     | 1                     | 1     |                         |  |                         |  |                                                                                    |  |
| 2:30 PM - 3:30 PM          | 1  | 0                         | 1  | 8                                                       | 0 | 0                                  | 0 | 3                     | 1  | 9                     | 0     | 3                     | 13    |                         |  |                         |  |                                                                                    |  |
| 2:45 PM - 3:45 PM          | 1  | 0                         | 2  | 10                                                      | 0 | 0                                  | 0 | 3                     | 1  | 12                    | 0     | 3                     | 16    |                         |  |                         |  |                                                                                    |  |
| 3:00 PM - 4:00 PM          | 7  | 1                         | 2  | 11                                                      | 0 | 0                                  | 0 | 2                     | 8  | 13                    | 0     | 2                     | 23    |                         |  |                         |  |                                                                                    |  |
| 3:15 PM - 4:15 PM          | 9  | 2                         | 3  | 14                                                      | 0 | 0                                  | 0 | 0                     | 11 | 17                    | 0     | 0                     | 28    |                         |  |                         |  |                                                                                    |  |
| 3:30 PM - 4:30 PM          | 9  | 2                         | 4  | 8                                                       | 0 | 0                                  | 0 | 0                     | 11 | 12                    | 0     | 0                     | 23    |                         |  |                         |  |                                                                                    |  |
| 3:45 PM - 4:45 PM          | 9  | 2                         | 3  | 7                                                       | 0 | 0                                  | 0 | 2                     | 11 | 10                    | 0     | 2                     | 23    |                         |  |                         |  |                                                                                    |  |
| 4:00 PM - 5:00 PM          | 3  | 1                         | 5  | 7                                                       | 0 | 0                                  | 1 | 4                     | 4  | 12                    | 0     | 5                     | 21    |                         |  |                         |  |                                                                                    |  |
| 4:15 PM - 5:15 PM          | 1  | 0                         | 6  | 2                                                       | 0 | 0                                  | 1 | 5                     | 1  | 8                     | 0     | 6                     | 15    |                         |  |                         |  |                                                                                    |  |
| 4:30 PM - 5:30 PM          | 1  | 0                         | 5  | 2                                                       | 0 | 0                                  | 2 | 6                     | 1  | 7                     | 0     | 8                     | 16    |                         |  |                         |  |                                                                                    |  |



# Wells + Associates, Inc

Tysons, Virginia

## Turning Movement Count - Total Vehicles

| PROJECT:            |                                | Herndon ES                            |      | DATE:       |       | 2/1/2023                                    |                                      | SOUTHBOUND ROAD: |      | Dranesville road        |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
|---------------------|--------------------------------|---------------------------------------|------|-------------|-------|---------------------------------------------|--------------------------------------|------------------|------|-------------------------|-------|-----|--------------------------------|------|------|--------|-------|-----|----------------|------|------|--------|-------|-----|-------------------------|------|-----|-----|
| W+A JOB NO:         |                                | 8996                                  |      | DAY:        |       | Wednesday                                   |                                      | NORTHBOUND ROAD: |      | Dranesville road        |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| INTERSECTION:       |                                | Dranesville Rd. & School Entr.- South |      | WEATHER:    |       | clear                                       |                                      | WESTBOUND ROAD:  |      | School Entrance - South |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| LOCATION:           |                                | Fairfax County,VA                     |      | COUNTED BY: |       | Agan                                        |                                      | EASTBOUND ROAD:  |      | 0                       |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| INPUTED BY:         |                                | agan                                  |      |             |       | <th colspan="2"></th> <th colspan="2"></th> |                                      |                  |      |                         |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| Time Period         | Southbound<br>Dranesville road |                                       |      |             |       |                                             | Westbound<br>School Entrance - South |                  |      |                         |       |     | Northbound<br>Dranesville road |      |      |        |       |     | Eastbound<br>0 |      |      |        |       |     | North East<br>& & Total |      |     |     |
|                     | Right                          | Thru                                  | Left | U-Turn      | Total | PHF                                         | Right                                | Thru             | Left | U-Turn                  | Total | PHF | Right                          | Thru | Left | U-Turn | Total | PHF | Right          | Thru | Left | U-Turn | Total | PHF | South                   | West |     |     |
| 15 Minute Volumes   |                                |                                       |      |             |       |                                             |                                      |                  |      |                         |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| 8:00 AM - 8:15 AM   |                                | 0                                     | 4    | 20          | 0     | 24                                          |                                      | 4                | 0    | 4                       | 0     | 8   |                                | 14   | 6    | 0      | 0     | 20  |                | 0    | 0    | 0      | 0     | 0   |                         | 44   | 8   | 52  |
| 8:15 AM - 8:30 AM   |                                | 0                                     | 5    | 8           | 0     | 13                                          |                                      | 4                | 0    | 0                       | 0     | 4   |                                | 10   | 9    | 0      | 0     | 19  |                | 0    | 0    | 0      | 0     | 0   |                         | 32   | 4   | 36  |
| 8:30 AM - 8:45 AM   |                                | 0                                     | 5    | 33          | 0     | 38                                          |                                      | 2                | 0    | 0                       | 0     | 2   |                                | 8    | 4    | 0      | 0     | 12  |                | 0    | 0    | 0      | 0     | 0   |                         | 50   | 2   | 52  |
| 8:45 AM - 9:00 AM   |                                | 0                                     | 5    | 22          | 0     | 27                                          |                                      | 5                | 0    | 2                       | 0     | 7   |                                | 10   | 6    | 0      | 0     | 16  |                | 0    | 0    | 0      | 0     | 0   |                         | 43   | 7   | 50  |
| 9:00 AM - 9:15 AM   |                                | 0                                     | 5    | 33          | 0     | 38                                          |                                      | 30               | 0    | 0                       | 0     | 30  |                                | 16   | 9    | 0      | 0     | 25  |                | 0    | 0    | 0      | 0     | 0   |                         | 63   | 30  | 93  |
| 9:15 AM - 9:30 AM   |                                | 0                                     | 3    | 21          | 0     | 24                                          |                                      | 31               | 0    | 15                      | 0     | 46  |                                | 5    | 6    | 0      | 0     | 11  |                | 0    | 0    | 0      | 0     | 0   |                         | 35   | 46  | 81  |
| 9:30 AM - 9:45 AM   |                                | 0                                     | 3    | 9           | 0     | 12                                          |                                      | 2                | 0    | 1                       | 0     | 3   |                                | 2    | 4    | 0      | 0     | 6   |                | 0    | 0    | 0      | 0     | 0   |                         | 18   | 3   | 21  |
| 9:45 AM - 10:00 AM  |                                | 0                                     | 5    | 6           | 0     | 11                                          |                                      | 4                | 0    | 0                       | 0     | 4   |                                | 0    | 1    | 0      | 0     | 1   |                | 0    | 0    | 0      | 0     | 0   |                         | 12   | 4   | 16  |
| 10:00 AM - 10:15 AM |                                | 0                                     | 2    | 3           | 0     | 5                                           |                                      | 1                | 0    | 0                       | 0     | 1   |                                | 1    | 5    | 0      | 0     | 6   |                | 0    | 0    | 0      | 0     | 0   |                         | 11   | 1   | 12  |
| 10:15 AM - 10:30 AM |                                | 0                                     | 3    | 0           | 0     | 3                                           |                                      | 1                | 0    | 0                       | 0     | 1   |                                | 1    | 2    | 0      | 0     | 3   |                | 0    | 0    | 0      | 0     | 0   |                         | 6    | 1   | 7   |
| 10:30 AM - 10:45 AM |                                | 0                                     | 5    | 2           | 0     | 7                                           |                                      | 0                | 0    | 0                       | 0     | 0   |                                | 2    | 5    | 0      | 0     | 7   |                | 0    | 0    | 0      | 0     | 0   |                         | 14   | 0   | 14  |
| 10:45 AM - 11:00 AM |                                | 0                                     | 6    | 3           | 0     | 9                                           |                                      | 1                | 0    | 3                       | 0     | 4   |                                | 2    | 1    | 0      | 0     | 3   |                | 0    | 0    | 0      | 0     | 0   |                         | 12   | 4   | 16  |
| 2:30 PM - 2:45 PM   |                                | 0                                     | 5    | 1           | 0     | 6                                           |                                      | 1                | 0    | 0                       | 0     | 1   |                                | 0    | 3    | 0      | 0     | 3   |                | 0    | 0    | 0      | 0     | 0   |                         | 9    | 1   | 10  |
| 2:45 PM - 3:00 PM   |                                | 0                                     | 4    | 1           | 0     | 5                                           |                                      | 0                | 0    | 2                       | 0     | 2   |                                | 0    | 3    | 0      | 0     | 3   |                | 0    | 0    | 0      | 0     | 0   |                         | 8    | 2   | 10  |
| 3:00 PM - 3:15 PM   |                                | 0                                     | 13   | 2           | 0     | 15                                          |                                      | 1                | 0    | 1                       | 0     | 2   |                                | 0    | 5    | 0      | 0     | 5   |                | 0    | 0    | 0      | 0     | 0   |                         | 20   | 2   | 22  |
| 3:15 PM - 3:30 PM   |                                | 0                                     | 7    | 4           | 0     | 11                                          |                                      | 0                | 0    | 0                       | 0     | 0   |                                | 4    | 3    | 0      | 0     | 7   |                | 0    | 0    | 0      | 0     | 0   |                         | 18   | 0   | 18  |
| 3:30 PM - 3:45 PM   |                                | 0                                     | 9    | 12          | 0     | 21                                          |                                      | 1                | 0    | 3                       | 0     | 4   |                                | 2    | 10   | 0      | 0     | 12  |                | 0    | 0    | 0      | 0     | 0   |                         | 33   | 4   | 37  |
| 3:45 PM - 4:00 PM   |                                | 0                                     | 5    | 8           | 0     | 13                                          |                                      | 2                | 0    | 0                       | 0     | 2   |                                | 7    | 3    | 0      | 0     | 10  |                | 0    | 0    | 0      | 0     | 0   |                         | 23   | 2   | 25  |
| 4:00 PM - 4:15 PM   |                                | 0                                     | 9    | 23          | 0     | 32                                          |                                      | 25               | 0    | 3                       | 0     | 28  |                                | 6    | 3    | 0      | 0     | 9   |                | 0    | 0    | 0      | 0     | 0   |                         | 41   | 28  | 69  |
| 4:15 PM - 4:30 PM   |                                | 0                                     | 12   | 9           | 0     | 21                                          |                                      | 23               | 0    | 12                      | 0     | 35  |                                | 4    | 7    | 0      | 0     | 11  |                | 0    | 0    | 0      | 0     | 0   |                         | 32   | 35  | 67  |
| 4:30 PM - 4:45 PM   |                                | 0                                     | 13   | 5           | 0     | 18                                          |                                      | 14               | 0    | 4                       | 0     | 18  |                                | 0    | 9    | 0      | 0     | 9   |                | 0    | 0    | 0      | 0     | 0   |                         | 27   | 18  | 45  |
| 4:45 PM - 5:00 PM   |                                | 0                                     | 5    | 2           | 0     | 7                                           |                                      | 5                | 0    | 4                       | 0     | 9   |                                | 0    | 4    | 0      | 0     | 4   |                | 0    | 0    | 0      | 0     | 0   |                         | 11   | 9   | 20  |
| 5:00 PM - 5:15 PM   |                                | 0                                     | 7    | 1           | 0     | 8                                           |                                      | 4                | 0    | 1                       | 0     | 5   |                                | 1    | 7    | 0      | 0     | 8   |                | 0    | 0    | 0      | 0     | 0   |                         | 16   | 5   | 21  |
| 5:15 PM - 5:30 PM   |                                | 0                                     | 7    | 4           | 0     | 11                                          |                                      | 1                | 0    | 0                       | 0     | 1   |                                | 3    | 5    | 0      | 0     | 8   |                | 0    | 0    | 0      | 0     | 0   |                         | 19   | 1   | 20  |
| Total               |                                | 0                                     | 147  | 232         | 0     | 379                                         |                                      | 162              | 1    | 56                      | 0     | 219 |                                | 98   | 120  | 0      | 0     | 218 |                | 0    | 0    | 0      | 0     | 0   |                         | 597  | 219 | 816 |
| One Hour Volumes    |                                |                                       |      |             |       |                                             |                                      |                  |      |                         |       |     |                                |      |      |        |       |     |                |      |      |        |       |     |                         |      |     |     |
| 8:00 AM - 9:00 AM   |                                | 0                                     | 19   | 83          | 0     | 102                                         | 0.7                                  | 15               | 0    | 6                       | 0     | 21  | 0.7                            | 42   | 25   | 0      | 0     | 67  | 0.8            | 0    | 0    | 0      | 0     | 0   |                         | 169  | 21  | 190 |
| 8:15 AM - 9:15 AM   |                                | 0                                     | 20   | 96          | 0     | 116                                         | 0.8                                  | 41               | 0    | 2                       | 0     | 43  | 0.4                            | 44   | 28   | 0      | 0     | 72  | 0.7            | 0    | 0    | 0      | 0     | 0   |                         | 188  | 43  | 231 |
| 8:30 AM - 9:30 AM   |                                | 0                                     | 18   | 109         | 0     | 127                                         | 0.8                                  | 68               | 0    | 17                      | 0     | 85  | 0.5                            | 39   | 25   | 0      | 0     | 64  | 0.6            | 0    | 0    | 0      | 0     | 0   |                         | 191  | 85  | 276 |
| 8:45 AM - 9:45 AM   |                                | 0                                     | 16   | 85          | 0     | 101                                         | 0.7                                  | 68               | 0    | 18                      | 0     | 86  | 0.5                            | 33   | 25   | 0      | 0     | 58  | 0.6            | 0    | 0    | 0      | 0     | 0   |                         | 159  | 86  | 245 |
| 9:00 AM - 10:00 AM  |                                | 0                                     | 16   | 69          | 0     | 85                                          | 0.6                                  | 67               | 0    | 16                      | 0     | 83  | 0.5                            | 23   | 20   | 0      | 0     | 43  | 0.4            | 0    | 0    | 0      | 0     | 0   |                         | 128  | 83  | 211 |
| 9:15 AM - 10:15 AM  |                                | 0                                     | 13   | 39          | 0     | 52                                          | 0.5                                  | 38               | 0    | 16                      | 0     | 54  | 0.3                            | 8    | 16   | 0      | 0     | 24  | 0.5            | 0    | 0    | 0      | 0     | 0   |                         | 76   | 54  | 130 |
| 9:30 AM - 10:30 AM  |                                | 0                                     | 13   | 18          | 0     | 31                                          | 0.6                                  | 8                | 0    | 1                       | 0     | 9   | 0.6                            | 4    | 12   | 0      | 0     | 16  | 0.7            | 0    | 0    | 0      | 0     | 0   |                         | 47   | 9   | 56  |
| 9:45 AM - 10:45 AM  |                                | 0                                     | 15   | 11          | 0     | 26                                          | 0.6                                  | 6                | 0    | 0                       | 0     | 6   | 0.4                            | 4    | 13   | 0      | 0     | 17  | 0.6            | 0    | 0    | 0      | 0     | 0   |                         | 43   | 6   | 49  |
| 10:00 AM - 11:00 AM |                                | 0                                     | 16   | 8           | 0     | 24                                          | 0.7                                  | 3                | 0    | 3                       | 0     | 6   | 0.4                            | 6    | 13   | 0      | 0     | 19  | 0.7            | 0    | 0    | 0      | 0     | 0   |                         | 43   | 6   | 49  |
| 2:30 PM - 3:30 PM   |                                | 0                                     | 29   | 8           | 0     | 37                                          | 0.6                                  | 2                | 0    | 3                       | 0     | 5   | 0.6                            | 4    | 14   | 0      | 0     | 18  | 0.6            | 0    | 0    | 0      | 0     | 0   |                         | 55   | 5   | 60  |
| 2:45 PM - 3:45 PM   |                                | 0                                     | 33   | 19          | 0     | 52                                          | 0.6                                  | 2                | 0    | 6                       | 0     | 8   | 0.5                            | 6    | 21   | 0      | 0     | 27  | 0.6            | 0    | 0    | 0      | 0     | 0   |                         | 79   | 8   | 87  |
| 3:00 PM - 4:00 PM   |                                | 0                                     | 34   | 26          | 0     | 60                                          | 0.7                                  | 4                | 0    | 4                       | 0     | 8   | 0.5                            | 13   | 21   | 0      | 0     | 34  | 0.7            | 0    | 0    | 0      | 0     | 0   |                         | 94   | 8   | 102 |
| 3:15 PM - 4:15 PM   |                                | 0                                     | 30   | 47          | 0     | 77                                          | 0.6                                  | 28               | 0    | 6                       | 0     | 34  | 0.3                            | 19   | 19   | 0      | 0     | 38  | 0.8            | 0    | 0    | 0      | 0     | 0   |                         | 115  | 34  | 149 |
| 3:30 PM - 4:30 PM   |                                | 0                                     | 35   | 52          | 0     | 87                                          | 0.7                                  | 51               | 0    | 18                      | 0     | 69  | 0.5                            | 19   | 23   | 0      | 0     | 42  | 0.9            | 0    | 0    | 0      | 0     | 0   |                         | 129  | 69  | 198 |
| 3:45 PM - 4:45 PM   |                                | 0                                     | 39   | 45          | 0     | 84                                          | 0.7                                  | 64               | 0    | 19                      | 0     | 83  | 0.6                            | 17   | 22   | 0      | 0     | 39  | 0.9            | 0    | 0    | 0      | 0     | 0   |                         | 123  | 83  | 206 |
| 4:00 PM - 5:00 PM   |                                | 0                                     | 39   | 39          | 0     | 78                                          | 0.6                                  | 67               | 0    | 23                      | 0     | 90  | 0.6                            | 10   | 23   | 0      | 0     | 33  | 0.8            | 0    | 0    | 0      | 0     | 0   |                         | 111  | 90  | 201 |
| 4:15 PM - 5:15 PM   |                                | 0                                     | 37   | 17          | 0     | 54                                          | 0.6                                  | 46               | 0    | 21                      | 0     | 67  | 0.5                            | 5    | 27   | 0      | 0     | 32  | 0.7            | 0    | 0    | 0      | 0     | 0   |                         | 86   | 67  | 153 |
| 4:30 PM - 5:30 PM   |                                | 0                                     | 32   | 12          | 0     | 44                                          | 0.6                                  | 24               | 0    | 9                       | 0     | 33  | 0.5                            | 4    | 25   | 0      | 0     | 29  | 0.8            | 0    | 0    | 0      | 0     | 0   |                         | 73   | 33  | 106 |

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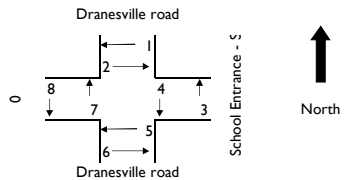
## Turning Movement Count - Bicycles

| <b>PROJECT:</b> Herndon ES                             |                                | <b>DATE:</b> 2/1/2023   |      | <b>SOUTHBOUND ROAD:</b> Dranesville road       |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
|--------------------------------------------------------|--------------------------------|-------------------------|------|------------------------------------------------|--------------------------------------|------|------|-------|--------------------------------|------|------|-------|----------------|------|------|-------|----------------------------|------|
| <b>W+A JOB NO:</b> 8996                                |                                | <b>DAY:</b> Wednesday   |      | <b>ORTHBOUND ROAD:</b> Dranesville road        |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| <b>INTERSECTION:</b> Dranesville Rd. & School Entrance |                                | <b>WEATHER:</b> clear   |      | <b>WESTBOUND ROAD:</b> School Entrance - South |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| <b>LOCATION:</b> Fairfax County,VA                     |                                | <b>COUNTED BY:</b> Agan |      | <b>EASTBOUND ROAD:</b> 0                       |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
|                                                        |                                | <b>INPUTED BY:</b> agan |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| Time<br>Period                                         | Southbound<br>Dranesville road |                         |      |                                                | Westbound<br>School Entrance - South |      |      |       | Northbound<br>Dranesville road |      |      |       | Eastbound<br>0 |      |      |       | North<br>& East<br>& Total |      |
|                                                        | Right                          | Thru                    | Left | Total                                          | Right                                | Thru | Left | Total | Right                          | Thru | Left | Total | Right          | Thru | Left | Total | South                      | West |
| <b>15 Minute Volumes</b>                               |                                |                         |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| 8:00 AM - 8:15 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:15 AM - 8:30 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:30 AM - 8:45 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 8:45 AM - 9:00 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:00 AM - 9:15 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                | 2    |      | 2     |                |      |      | 0     | 2                          | 2    |
| 9:15 AM - 9:30 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:30 AM - 9:45 AM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 9:45 AM - 10:00 AM                                     |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:00 AM - 10:15 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:15 AM - 10:30 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:30 AM - 10:45 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 10:45 AM - 11:00 AM                                    |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 2:30 PM - 2:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 2:45 PM - 3:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:00 PM - 3:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:15 PM - 3:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:30 PM - 3:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 3:45 PM - 4:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:00 PM - 4:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:15 PM - 4:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:30 PM - 4:45 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 4:45 PM - 5:00 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 5:00 PM - 5:15 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| 5:15 PM - 5:30 PM                                      |                                |                         |      | 0                                              |                                      |      |      | 0     |                                |      |      | 0     |                |      |      | 0     | 0                          | 0    |
| Total                                                  | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 2     | 0              | 0    | 0    | 0     | 2                          | 0    |
| <b>One Hour Volumes</b>                                |                                |                         |      |                                                |                                      |      |      |       |                                |      |      |       |                |      |      |       |                            |      |
| 8:00 AM - 9:00 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 8:15 AM - 9:15 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 2     | 0              | 0    | 0    | 0     | 2                          | 0    |
| 8:30 AM - 9:30 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 2     | 0              | 0    | 0    | 0     | 2                          | 0    |
| 8:45 AM - 9:45 AM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 2     | 0              | 0    | 0    | 0     | 2                          | 0    |
| 9:00 AM - 10:00 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 2    | 0    | 2     | 0              | 0    | 0    | 0     | 2                          | 0    |
| 9:15 AM - 10:15 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 9:30 AM - 10:30 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 9:45 AM - 10:45 AM                                     | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 10:00 AM - 11:00 AM                                    | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 2:30 PM - 3:30 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 2:45 PM - 3:45 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:00 PM - 4:00 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:15 PM - 4:15 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:30 PM - 4:30 PM                                      | 0                              | 0                       | 0    | 0                                              | 0                                    | 0    | 0    | 0     | 0                              | 0    | 0    | 0     | 0              | 0    | 0    | 0     | 0                          | 0    |
| 3:45 PM - 4:45 PM                                      | 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    |
| 4:15 PM - 5:15 PM                                      | 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    |

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## Pedestrian Volume Survey

| <b>PROJECT:</b> Herndon ES                              |          |  |     |    |   |   |   |    |       |       |       |       |       |
|---------------------------------------------------------|----------|------------------------------------------------------------------------------------|-----|----|---|---|---|----|-------|-------|-------|-------|-------|
| <b>W + A JOB NO:</b> 8996                               |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>INTERSECTION:</b> Dranesville Rd. & School Entr.- So |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>LOCATION:</b> Fairfax County,VA                      |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>DATE:</b> 2/1/2023                                   |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>DAY:</b> Wednesday                                   |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>WEATHER:</b> clear                                   |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>COUNTED BY:</b> Agan                                 |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| <b>INPUTED BY:</b> agan                                 |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
|                                                         |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| Time Period                                             | Movement |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
|                                                         | 1        | 2                                                                                  | 3   | 4  | 5 | 6 | 7 | 8  | 1 + 2 | 3 + 4 | 5 + 6 | 7 + 8 | Total |
| <b>15 Minute Volumes</b>                                |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| 8:00 AM - 8:15 AM                                       |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 8:15 AM - 8:30 AM                                       |          |                                                                                    |     | 1  |   |   |   |    | 0     | 1     | 0     | 0     | 1     |
| 8:30 AM - 8:45 AM                                       |          |                                                                                    | 4   | 1  |   |   |   | 1  | 0     | 5     | 0     | 1     | 6     |
| 8:45 AM - 9:00 AM                                       |          |                                                                                    | 3   |    |   |   |   |    | 0     | 3     | 0     | 0     | 3     |
| 9:00 AM - 9:15 AM                                       |          | 4                                                                                  | 40  | 8  |   |   |   |    | 4     | 48    | 0     | 0     | 52    |
| 9:15 AM - 9:30 AM                                       |          |                                                                                    | 1   | 6  |   |   |   |    | 0     | 7     | 0     | 0     | 7     |
| 9:30 AM - 9:45 AM                                       |          |                                                                                    |     |    |   |   | 1 | 2  | 0     | 0     | 0     | 3     | 3     |
| 9:45 AM - 10:00 AM                                      |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 10:00 AM - 10:15 AM                                     |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 10:15 AM - 10:30 AM                                     |          |                                                                                    |     |    |   |   |   | 1  | 0     | 0     | 0     | 1     | 1     |
| 10:30 AM - 10:45 AM                                     |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 10:45 AM - 11:00 AM                                     |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 2:30 PM - 2:45 PM                                       |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 2:45 PM - 3:00 PM                                       |          |                                                                                    |     | 1  |   |   |   | 2  | 0     | 1     | 0     | 2     | 3     |
| 3:00 PM - 3:15 PM                                       |          |                                                                                    |     | 2  |   |   |   |    | 0     | 2     | 0     | 0     | 2     |
| 3:15 PM - 3:30 PM                                       |          |                                                                                    |     | 6  |   |   |   |    | 0     | 6     | 0     | 0     | 6     |
| 3:30 PM - 3:45 PM                                       |          |                                                                                    |     |    |   |   |   |    | 0     | 0     | 0     | 0     | 0     |
| 3:45 PM - 4:00 PM                                       |          |                                                                                    | 3   |    |   |   |   |    | 0     | 3     | 0     | 0     | 3     |
| 4:00 PM - 4:15 PM                                       |          | 9                                                                                  | 29  |    |   |   |   |    | 9     | 29    | 0     | 0     | 38    |
| 4:15 PM - 4:30 PM                                       |          |                                                                                    | 12  |    |   |   |   |    | 0     | 12    | 0     | 0     | 12    |
| 4:30 PM - 4:45 PM                                       |          |                                                                                    | 6   |    |   |   |   | 1  | 0     | 6     | 0     | 1     | 7     |
| 4:45 PM - 5:00 PM                                       |          | 2                                                                                  | 1   |    |   |   |   | 3  | 2     | 1     | 0     | 3     | 6     |
| 5:00 PM - 5:15 PM                                       |          |                                                                                    | 2   |    |   |   |   | 2  | 0     | 2     | 0     | 2     | 4     |
| 5:15 PM - 5:30 PM                                       |          |                                                                                    |     |    |   |   | 1 |    | 0     | 0     | 0     | 1     | 1     |
| Total                                                   | 0        | 15                                                                                 | 101 | 25 | 0 | 0 | 2 | 12 | 15    | 126   | 0     | 14    | 155   |
| <b>One Hour Volumes</b>                                 |          |                                                                                    |     |    |   |   |   |    |       |       |       |       |       |
| 8:00 AM - 9:00 AM                                       | 0        | 0                                                                                  | 7   | 2  | 0 | 0 | 0 | 1  | 0     | 9     | 0     | 1     | 10    |
| 8:15 AM - 9:15 AM                                       | 0        | 4                                                                                  | 47  | 10 | 0 | 0 | 0 | 1  | 4     | 57    | 0     | 1     | 62    |
| 8:30 AM - 9:30 AM                                       | 0        | 4                                                                                  | 48  | 15 | 0 | 0 | 0 | 1  | 4     | 63    | 0     | 1     | 68    |
| 8:45 AM - 9:45 AM                                       | 0        | 4                                                                                  | 44  | 14 | 0 | 0 | 1 | 2  | 4     | 58    | 0     | 3     | 65    |
| 9:00 AM - 10:00 AM                                      | 0        | 4                                                                                  | 41  | 14 | 0 | 0 | 1 | 2  | 4     | 55    | 0     | 3     | 62    |
| 9:15 AM - 10:15 AM                                      | 0        | 0                                                                                  | 1   | 6  | 0 | 0 | 1 | 2  | 0     | 7     | 0     | 3     | 10    |
| 9:30 AM - 10:30 AM                                      | 0        | 0                                                                                  | 0   | 0  | 0 | 0 | 1 | 3  | 0     | 0     | 0     | 4     | 4     |
| 9:45 AM - 10:45 AM                                      | 0        | 0                                                                                  | 0   | 0  | 0 | 0 | 0 | 1  | 0     | 0     | 0     | 1     | 1     |
| 10:00 AM - 11:00 AM                                     | 0        | 0                                                                                  | 0   | 0  | 0 | 0 | 0 | 1  | 0     | 0     | 0     | 1     | 1     |
| 2:30 PM - 3:30 PM                                       | 0        | 0                                                                                  | 0   | 9  | 0 | 0 | 0 | 2  | 0     | 9     | 0     | 2     | 11    |
| 2:45 PM - 3:45 PM                                       | 0        | 0                                                                                  | 0   | 9  | 0 | 0 | 0 | 2  | 0     | 9     | 0     | 2     | 11    |
| 3:00 PM - 4:00 PM                                       | 0        | 0                                                                                  | 3   | 8  | 0 | 0 | 0 | 0  | 0     | 11    | 0     | 0     | 11    |
| 3:15 PM - 4:15 PM                                       | 0        | 9                                                                                  | 32  | 6  | 0 | 0 | 0 | 0  | 9     | 38    | 0     | 0     | 47    |
| 3:30 PM - 4:30 PM                                       | 0        | 9                                                                                  | 44  | 0  | 0 | 0 | 0 | 0  | 9     | 44    | 0     | 0     | 53    |
| 3:45 PM - 4:45 PM                                       | 0        | 9                                                                                  | 50  | 0  | 0 | 0 | 0 | 1  | 9     | 50    | 0     | 1     | 60    |
| 4:00 PM - 5:00 PM                                       | 0        | 11                                                                                 | 48  | 0  | 0 | 0 | 0 | 4  | 11    | 48    | 0     | 4     | 63    |
| 4:15 PM - 5:15 PM                                       | 0        | 2                                                                                  | 21  | 0  | 0 | 0 | 0 | 6  | 2     | 21    | 0     | 6     | 29    |
| 4:30 PM - 5:30 PM                                       | 0        | 2                                                                                  | 9   | 0  | 0 | 0 | 1 | 6  | 2     | 9     | 0     | 7     | 18    |



**APPENDIX D**

**2023 EXISTING  
SYNCHRO WORKSHEETS**

# HCM Unsignalized Intersection Capacity Analysis

## 1: Dranesville Road & North Site Driveway

Existing Conditions  
AM Peak Hour

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 5                                                                                 | 18                                                                                | 93                                                                                | 0                                                                                 | 0                                                                                 | 128                                                                               |
| Future Volume (Veh/h)             | 5                                                                                 | 18                                                                                | 93                                                                                | 0                                                                                 | 0                                                                                 | 128                                                                               |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.72                                                                              | 0.72                                                                              | 0.72                                                                              | 0.72                                                                              | 0.72                                                                              | 0.72                                                                              |
| Hourly flow rate (vph)            | 7                                                                                 | 25                                                                                | 129                                                                               | 0                                                                                 | 0                                                                                 | 178                                                                               |
| Pedestrians                       | 11                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 1                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 318                                                                               | 141                                                                               |                                                                                   |                                                                                   | 140                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 318                                                                               | 141                                                                               |                                                                                   |                                                                                   | 140                                                                               |                                                                                   |
| tC, single (s)                    | 6.8                                                                               | 6.8                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.9                                                                               | 3.8                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 99                                                                                | 97                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |
| cM capacity (veh/h)               | 597                                                                               | 763                                                                               |                                                                                   |                                                                                   | 1428                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 32                                                                                | 129                                                                               | 178                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 7                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 25                                                                                | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 719                                                                               | 1700                                                                              | 1700                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.04                                                                              | 0.08                                                                              | 0.10                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 3                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.2                                                                              | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.2                                                                              | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   |                                                                                   | 1.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 17.8%                                                                             | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |

# HCM Unsignalized Intersection Capacity Analysis

## 2: Dranesville Road & South Site Driveway

Existing Conditions  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 17                                                                                | 68                                                                                | 25                                                                                | 39                                                                                | 109                                                                               | 24                                                                                |
| Future Volume (Veh/h)             | 17                                                                                | 68                                                                                | 25                                                                                | 39                                                                                | 109                                                                               | 24                                                                                |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.74                                                                              | 0.74                                                                              | 0.74                                                                              | 0.74                                                                              | 0.74                                                                              | 0.74                                                                              |
| Hourly flow rate (vph)            | 23                                                                                | 92                                                                                | 34                                                                                | 53                                                                                | 147                                                                               | 32                                                                                |
| Pedestrians                       | 63                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 4                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 450                                                                               | 128                                                                               |                                                                                   |                                                                                   | 150                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 450                                                                               | 128                                                                               |                                                                                   |                                                                                   | 150                                                                               |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.2                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.3                                                                               |                                                                                   |
| p0 queue free %                   | 95                                                                                | 89                                                                                |                                                                                   |                                                                                   | 89                                                                                |                                                                                   |
| cM capacity (veh/h)               | 473                                                                               | 864                                                                               |                                                                                   |                                                                                   | 1295                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 115                                                                               | 87                                                                                | 179                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 23                                                                                | 0                                                                                 | 147                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 92                                                                                | 53                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 741                                                                               | 1700                                                                              | 1295                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.16                                                                              | 0.05                                                                              | 0.11                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 14                                                                                | 0                                                                                 | 10                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.7                                                                              | 0.0                                                                               | 6.8                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | B                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.7                                                                              | 0.0                                                                               | 6.8                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 6.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 27.1%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



# HCM Unsignalized Intersection Capacity Analysis

## 1: Dranesville Road & North Site Driveway

Existing Conditions  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 10                                                                                | 20                                                                                | 86                                                                                | 0                                                                                 | 0                                                                                 | 74                                                                                |
| Future Volume (Veh/h)             | 10                                                                                | 20                                                                                | 86                                                                                | 0                                                                                 | 0                                                                                 | 74                                                                                |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.76                                                                              | 0.76                                                                              | 0.76                                                                              | 0.76                                                                              | 0.76                                                                              | 0.76                                                                              |
| Hourly flow rate (vph)            | 13                                                                                | 26                                                                                | 113                                                                               | 0                                                                                 | 0                                                                                 | 97                                                                                |
| Pedestrians                       | 10                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 11                                                                                |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 1                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 220                                                                               | 134                                                                               |                                                                                   |                                                                                   | 123                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 220                                                                               | 134                                                                               |                                                                                   |                                                                                   | 123                                                                               |                                                                                   |
| tC, single (s)                    | 7.0                                                                               | 6.6                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 4.0                                                                               | 3.7                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 98                                                                                | 97                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |
| cM capacity (veh/h)               | 649                                                                               | 807                                                                               |                                                                                   |                                                                                   | 1450                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 39                                                                                | 113                                                                               | 97                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 13                                                                                | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 26                                                                                | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 746                                                                               | 1700                                                                              | 1700                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.05                                                                              | 0.07                                                                              | 0.06                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 4                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.1                                                                              | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.1                                                                              | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 1.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 20.1%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

## HCM Unsignalized Intersection Capacity Analysis

### 2: Dranesville Road & South Site Driveway

Existing Conditions  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 19                                                                                | 64                                                                                | 22                                                                                | 17                                                                                | 45                                                                                | 39                                                                                |
| Future Volume (Veh/h)             | 19                                                                                | 64                                                                                | 22                                                                                | 17                                                                                | 45                                                                                | 39                                                                                |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.75                                                                              | 0.75                                                                              | 0.75                                                                              | 0.75                                                                              | 0.75                                                                              | 0.75                                                                              |
| Hourly flow rate (vph)            | 25                                                                                | 85                                                                                | 29                                                                                | 23                                                                                | 60                                                                                | 52                                                                                |
| Pedestrians                       | 50                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 9                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 5                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 262                                                                               | 100                                                                               |                                                                                   |                                                                                   | 102                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 262                                                                               | 100                                                                               |                                                                                   |                                                                                   | 102                                                                               |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.5                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.5                                                                               |                                                                                   |
| p0 queue free %                   | 96                                                                                | 91                                                                                |                                                                                   |                                                                                   | 95                                                                                |                                                                                   |
| cM capacity (veh/h)               | 658                                                                               | 903                                                                               |                                                                                   |                                                                                   | 1240                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 110                                                                               | 52                                                                                | 112                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 25                                                                                | 0                                                                                 | 60                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 85                                                                                | 23                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 833                                                                               | 1700                                                                              | 1240                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.13                                                                              | 0.03                                                                              | 0.05                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 11                                                                                | 0                                                                                 | 4                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.0                                                                              | 0.0                                                                               | 4.5                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.0                                                                              | 0.0                                                                               | 4.5                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 5.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 25.9%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

**APPENDIX E**

**2023 FUTURE  
SYNCHRO WORKSHEETS**



# HCM Unsignalized Intersection Capacity Analysis

## 1: Dranesville Road & North Site Driveway

Future Conditions  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 6                                                                                 | 18                                                                                | 93                                                                                | 10                                                                                | 28                                                                                | 100                                                                               |
| Future Volume (Veh/h)             | 6                                                                                 | 18                                                                                | 93                                                                                | 10                                                                                | 28                                                                                | 100                                                                               |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 7                                                                                 | 20                                                                                | 101                                                                               | 11                                                                                | 30                                                                                | 109                                                                               |
| Pedestrians                       | 11                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 1                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 286                                                                               | 118                                                                               |                                                                                   |                                                                                   | 123                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 286                                                                               | 118                                                                               |                                                                                   |                                                                                   | 123                                                                               |                                                                                   |
| tC, single (s)                    | 6.8                                                                               | 6.8                                                                               |                                                                                   |                                                                                   | 5.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.9                                                                               | 3.8                                                                               |                                                                                   |                                                                                   | 3.1                                                                               |                                                                                   |
| p0 queue free %                   | 99                                                                                | 97                                                                                |                                                                                   |                                                                                   | 97                                                                                |                                                                                   |
| cM capacity (veh/h)               | 606                                                                               | 787                                                                               |                                                                                   |                                                                                   | 1017                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 27                                                                                | 112                                                                               | 139                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 7                                                                                 | 0                                                                                 | 30                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 20                                                                                | 11                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 730                                                                               | 1700                                                                              | 1017                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.04                                                                              | 0.07                                                                              | 0.03                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 3                                                                                 | 0                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.1                                                                              | 0.0                                                                               | 2.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | B                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.1                                                                              | 0.0                                                                               | 2.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   |                                                                                   | 2.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 23.8%                                                                             | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |

## HCM Unsignalized Intersection Capacity Analysis

### 2: Dranesville Road & South Site Driveway

Future Conditions  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 16                                                                                | 68                                                                                | 35                                                                                | 29                                                                                | 81                                                                                | 25                                                                                |
| Future Volume (Veh/h)             | 16                                                                                | 68                                                                                | 35                                                                                | 29                                                                                | 81                                                                                | 25                                                                                |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 17                                                                                | 74                                                                                | 38                                                                                | 32                                                                                | 88                                                                                | 27                                                                                |
| Pedestrians                       | 63                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 4                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 320                                                                               | 121                                                                               |                                                                                   |                                                                                   | 133                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 320                                                                               | 121                                                                               |                                                                                   |                                                                                   | 133                                                                               |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 97                                                                                | 92                                                                                |                                                                                   |                                                                                   | 94                                                                                |                                                                                   |
| cM capacity (veh/h)               | 592                                                                               | 871                                                                               |                                                                                   |                                                                                   | 1365                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 91                                                                                | 70                                                                                | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 17                                                                                | 0                                                                                 | 88                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 74                                                                                | 32                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 801                                                                               | 1700                                                                              | 1365                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.11                                                                              | 0.04                                                                              | 0.06                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 10                                                                                | 0                                                                                 | 5                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 10.1                                                                              | 0.0                                                                               | 6.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | B                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 10.1                                                                              | 0.0                                                                               | 6.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 5.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 25.6%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

# HCM Unsignalized Intersection Capacity Analysis

## 1: Dranesville Road & North Site Driveway

Future Conditions  
PM Peak Hour

|                                   |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|--|--|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |  |  |  |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |  |  |  |
| Traffic Volume (veh/h)            | 13                                                                                | 20                                                                                | 86                                                                                | 7                                                                                 | 18                                                                                | 56                                                                                |  |  |  |
| Future Volume (Veh/h)             | 13                                                                                | 20                                                                                | 86                                                                                | 7                                                                                 | 18                                                                                | 56                                                                                |  |  |  |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |  |  |  |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |  |  |  |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |  |  |  |
| Hourly flow rate (vph)            | 14                                                                                | 22                                                                                | 93                                                                                | 8                                                                                 | 20                                                                                | 61                                                                                |  |  |  |
| Pedestrians                       | 10                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 11                                                                                |  |  |  |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |  |  |  |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |  |  |  |
| Percent Blockage                  | 1                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |  |  |  |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |  |  |  |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vC, conflicting volume            | 208                                                                               | 118                                                                               |                                                                                   |                                                                                   | 111                                                                               |                                                                                   |  |  |  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vCu, unblocked vol                | 208                                                                               | 118                                                                               |                                                                                   |                                                                                   | 111                                                                               |                                                                                   |  |  |  |
| tC, single (s)                    | 7.0                                                                               | 6.6                                                                               |                                                                                   |                                                                                   | 5.1                                                                               |                                                                                   |  |  |  |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| tF (s)                            | 4.1                                                                               | 3.7                                                                               |                                                                                   |                                                                                   | 3.1                                                                               |                                                                                   |  |  |  |
| p0 queue free %                   | 98                                                                                | 97                                                                                |                                                                                   |                                                                                   | 98                                                                                |                                                                                   |  |  |  |
| cM capacity (veh/h)               | 641                                                                               | 824                                                                               |                                                                                   |                                                                                   | 1031                                                                              |                                                                                   |  |  |  |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Total                      | 36                                                                                | 101                                                                               | 81                                                                                |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Left                       | 14                                                                                | 0                                                                                 | 20                                                                                |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Right                      | 22                                                                                | 8                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| cSH                               | 742                                                                               | 1700                                                                              | 1031                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume to Capacity                | 0.05                                                                              | 0.06                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Queue Length 95th (ft)            | 4                                                                                 | 0                                                                                 | 1                                                                                 |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Control Delay (s)                 | 10.1                                                                              | 0.0                                                                               | 2.2                                                                               |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Lane LOS                          | B                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Approach Delay (s)                | 10.1                                                                              | 0.0                                                                               | 2.2                                                                               |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Approach LOS                      | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Average Delay                     |                                                                                   | 2.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Intersection Capacity Utilization |                                                                                   | 23.7%                                                                             | ICU Level of Service                                                              | A                                                                                 |                                                                                   |                                                                                   |  |  |  |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |



# HCM Unsignalized Intersection Capacity Analysis

## 2: Dranesville Road & South Site Driveway

Future Conditions  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 16                                                                                | 64                                                                                | 29                                                                                | 10                                                                                | 27                                                                                | 42                                                                                |
| Future Volume (Veh/h)             | 16                                                                                | 64                                                                                | 29                                                                                | 10                                                                                | 27                                                                                | 42                                                                                |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 17                                                                                | 70                                                                                | 32                                                                                | 11                                                                                | 29                                                                                | 46                                                                                |
| Pedestrians                       | 50                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 9                                                                                 |
| Lane Width (ft)                   | 12.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 12.0                                                                              |
| Walking Speed (ft/s)              | 3.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 3.5                                                                               |
| Percent Blockage                  | 5                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 1                                                                                 |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (ft)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 192                                                                               | 96                                                                                |                                                                                   |                                                                                   | 93                                                                                |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 192                                                                               | 96                                                                                |                                                                                   |                                                                                   | 93                                                                                |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 98                                                                                | 92                                                                                |                                                                                   |                                                                                   | 98                                                                                |                                                                                   |
| cM capacity (veh/h)               | 744                                                                               | 906                                                                               |                                                                                   |                                                                                   | 1430                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 87                                                                                | 43                                                                                | 75                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 17                                                                                | 0                                                                                 | 29                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 70                                                                                | 11                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 869                                                                               | 1700                                                                              | 1430                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.10                                                                              | 0.03                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (ft)            | 8                                                                                 | 0                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 9.6                                                                               | 0.0                                                                               | 3.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 9.6                                                                               | 0.0                                                                               | 3.0                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 5.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 25.7%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

## **APPENDIX F**

### **REPORTED CRASH DATA**

# CRASH STATISTIC REPORT

## Accidents along Dranesville Rd between Park Ave and Fillmore St

2019-2023

### CRASH OVERVIEW

| Street Location         |   |
|-------------------------|---|
| DRANESVILLE RD/PARK AVE | 2 |
| Grand Total             | 2 |

| DOW         |   | HOD         |   | Month of Crash Date |   | Year of Crash Date |   |
|-------------|---|-------------|---|---------------------|---|--------------------|---|
| SUN         | 1 | 0200        | 1 | September           | 1 | 2019               | 1 |
| SAT         | 1 | 1500        | 1 | December            | 1 | 2021               | 1 |
| Grand Total | 2 | Grand Total | 2 | Grand Total         | 2 | Grand Total        | 2 |

| Speed Before Crash |   | Speed Limit |   |
|--------------------|---|-------------|---|
| 35                 | 1 | 25          | 1 |
| UNK                | 1 | 35          | 1 |
| Grand Total        | 2 | Grand Total | 2 |

\*This data was pulled on 02/03/23. Because the current year is incomplete, use caution when comparing to prior years.

\*\*Certain fields are reported per unit (vehicle/driver/pedestrian/passenger, etc) as opposed to per accident. These fields may have greater counts than those that require selections per accident, as there may be more than one unit involved in each single accident.

\*\*\*Locations were selected based on cross streets/addresses entered by the officer. For requests spanning along a roadway, accidents at cross streets and street number blocks in this section (when able to be obtained) will be included.



## DRIVER / PEDESTRIAN INFORMATION

| Driver's Action (P1)            |   | Driver/Pedestrian Condition (P2/P12) |   |
|---------------------------------|---|--------------------------------------|---|
| Fail to Maintain Proper Control | 1 | No Defects                           | 1 |
| Improper Turn - Wide Right Turn | 1 | UNK                                  | 1 |
| Grand Total                     | 2 | Grand Total                          | 2 |

| Driver Vision Obscured (P3) |   | Driver Distractions (P4) |   |
|-----------------------------|---|--------------------------|---|
| Not Obscured                | 1 | N/A                      | 2 |
| UNK                         | 1 | Grand Total              | 2 |
| Grand Total                 | 2 |                          |   |

| Driver/Pedestrian Drinking (P5/P11) |   | Driver/Pedestrian Method of Alcohol Determination (P6/P13) |   |
|-------------------------------------|---|------------------------------------------------------------|---|
| Had Not Been Drinking               | 1 | No Test                                                    | 1 |
| UNK                                 | 1 | Null                                                       | 1 |
| Grand Total                         | 2 | Grand Total                                                | 2 |

| Driver/Ped Drug Use (P7/P14) |   | Pedestrian Actions (P10) |   |
|------------------------------|---|--------------------------|---|
| No                           | 2 | Null                     | 2 |
| Grand Total                  | 2 | Grand Total              | 2 |

| Pedestrian Reflective Clothing (P15) |   |
|--------------------------------------|---|
| Null                                 | 2 |
| Grand Total                          | 2 |

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\*\*Certain fields are reported per unit (vehicle/driver/pedestrian/passenger, etc) as opposed to per accident. These fields may have greater counts than those that require selections per accident, as there may be more than one unit involved in each single accident.

\*\*\*Locations were selected based on cross streets/addresses entered by the officer. For requests spanning along a roadway, accidents at cross streets and street number blocks in this section (when able to be obtained) will be included.

## VEHICLE INFORMATION

| Vehicle Maneuver (V1) |   | Skidding/Tire Mark (V2)        |   |
|-----------------------|---|--------------------------------|---|
| Making Left Turn      | 1 | After Application of Brakes    | 1 |
| Making Right Turn     | 1 | No Visible Skid Mark/Tire Mark | 1 |
| Grand Total           | 2 | Grand Total                    | 2 |

| Vehicle Body Type (V3) |   | Vehicle Damage (V4) |   |
|------------------------|---|---------------------|---|
| Passenger Car          | 2 | Other               | 2 |
| Grand Total            | 2 | Grand Total         | 2 |

| Vehicle Condition (V5) |   | Special Function Motor Vehicle (V6) |   |
|------------------------|---|-------------------------------------|---|
| No Defects             | 2 | No Special Function                 | 1 |
| Grand Total            | 2 | Not Applicable                      | 1 |
|                        |   | Grand Total                         | 2 |

| EMV In Service (V7) |   | Truck Cover (V8) |   |
|---------------------|---|------------------|---|
| N/A                 | 2 | N/A              | 2 |
| Grand Total         | 2 | Grand Total      | 2 |

\*This data was pulled on 02/03/23. Because the current year is incomplete, use caution when comparing to prior years.

\*\*Certain fields are reported per unit (vehicle/driver/pedestrian/passenger, etc) as opposed to per accident. These fields may have greater counts than those that require selections per accident, as there may be more than one unit involved in each single accident.

\*\*\*Locations were selected based on cross streets/addresses entered by the officer. For requests spanning along a roadway, accidents at cross streets and street number blocks in this section (when able to be obtained) will be included.

## CRASH INFORMATION

|                                                        |   |                                     |   |
|--------------------------------------------------------|---|-------------------------------------|---|
| Location of 1st Harmful Event in Relation to Rdwy (C1) |   | Weather Conditions (C2)             |   |
| Median                                                 | 2 | No Adverse Condition (Clear/Cloudy) | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| Light Conditions (C3)                                  |   | Traffic Control Device (C4)         |   |
| Darkness - Street Not Lighted                          | 1 | No Traffic Control Device Present   | 1 |
| Daylight                                               | 1 | Yes- Working                        | 1 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| Traffic Control Type (C5)                              |   | Roadway Alignment (C6)              |   |
| No Traffic Control                                     | 1 | Curve-Level                         | 2 |
| Traffic Lanes Marked                                   | 1 | Grand Total                         | 2 |
| Grand Total                                            | 2 |                                     |   |
| Roadway Surface Condition (C7)                         |   | Road Surface Type (C8)              |   |
| Dry                                                    | 2 | Blacktop, Asphalt, Bituminous       | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| Roadway Description (C9)                               |   | Roadway Defects (C10)               |   |
| Two-Way, Divided, Positive Median Barrier              | 2 | No Defects                          | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| Relation to Roadway (C11)                              |   | Intersection Type (C12)             |   |
| Intersection Related-Within 150 FT                     | 1 | Three Approaches                    | 2 |
| Main-Line Roadway                                      | 1 | Grand Total                         | 2 |
| Grand Total                                            | 2 |                                     |   |
| Work Zone Related (C13)                                |   | Work Zone - Workers Present (C14)   |   |
| No                                                     | 2 | Null                                | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| Work Zone Location (C15)                               |   | Work Zone Type (C16)                |   |
| Null                                                   | 2 | Null                                | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |
| School Zone (C17)                                      |   | Type of Collision (C18)             |   |
| No                                                     | 2 | Other                               | 2 |
| Grand Total                                            | 2 | Grand Total                         | 2 |

\*This data was pulled on 02/03/23. Because the current year is incomplete, use caution when comparing to prior years.

\*\*Certain fields are reported per unit (vehicle/driver/pedestrian/passenger, etc) as opposed to per accident. These fields may have greater counts than those that require selections per accident, as there may be more than one unit involved in each single accident.

\*\*\*Locations were selected based on cross streets/addresses entered by the officer. For requests spanning along a roadway, accidents at cross streets and street number blocks in this section (when able to be obtained) will be included.



## CRASH EVENTS

| First Event                         |   | Second Event        |   |
|-------------------------------------|---|---------------------|---|
| Fixed Object - Curb                 | 1 | Fixed Object - Curb | 1 |
| Fixed Object - Traffic Sign Support | 1 | Null                | 1 |
| Grand Total                         | 2 | Grand Total         | 2 |

| Third Event |   | Fourth Event |   |
|-------------|---|--------------|---|
| Null        | 2 | Null         | 2 |
| Grand Total | 2 | Grand Total  | 2 |

| 1st Harmful Event of Entire Crash that Results in Injury or Damage |   | Most Harmful Event                  |   |
|--------------------------------------------------------------------|---|-------------------------------------|---|
| Fixed Object - Curb                                                | 1 | Fixed Object - Curb                 | 1 |
| Fixed Object - Traffic Sign Support                                | 1 | Fixed Object - Traffic Sign Support | 1 |
| Grand Total                                                        | 2 | Grand Total                         | 2 |

\*This data was pulled on 02/03/23. Because the current year is incomplete, use caution when comparing to prior years.

\*\*Certain fields are reported per unit (vehicle/driver/pedestrian/passenger, etc) as opposed to per accident. These fields may have greater counts than those that require selections per accident, as there may be more than one unit involved in each single accident.

\*\*\*Locations were selected based on cross streets/addresses entered by the officer. For requests spanning along a roadway, accidents at cross streets and street number blocks in this section (when able to be obtained) will be included.



| Document Number | Crash Date | Crash Time | Day Of Week | Collision Type | Crash Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | First Harmful Event | First Harmful Event Location   | KABCO Severity Code | Route Name                         | Route Number | Secondary Location | Latitude   | Longitude       | TREDS Jurisdiction | Route Or Street Name  | Crash Severity | Pedestrian Fatality Count | Non Pedestrian Fatality Count | Pedestrian Injury Count | Non Pedestrian Injury Count | Work Zone Related |   |   |   |
|-----------------|------------|------------|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|---------------------|------------------------------------|--------------|--------------------|------------|-----------------|--------------------|-----------------------|----------------|---------------------------|-------------------------------|-------------------------|-----------------------------|-------------------|---|---|---|
| 17352-9066      | 12/17/2017 | 1:27       | Sun         | 2. Angle       | As V1 was traveling SB Fillmore St, approaching the intersection of Dranesville Rd, the driver failed to maintain proper control and struck a parked vehicle (V2). It should be noted that there was heavy damage to the front passenger side quarter of V1 and heavy damage to the rear drivers side quarter of V2. In the process of V2 being struck, the gas tank ruptured and began to leak on the roadway. Due to the amount of gas leaking from V2 and no way to stop the leak for the tow, FF3 Fire Hamat 401 responded to clean the spill and make the vehicle safe for removal. The driver of V1 advised that he had been drinking prior to the accident. It should be noted that the driver was ran through SPST 's and was able to pass without incident. Henry's Wrecker Service responded to remove both vehicles upon the scene being deemed safe by hamat personnel. The driver of V1 was cited for VA 42-9- Fall to maintain proper control. There were no injuries listed with this incident. Information was exchanged between both parties without incident. Wanted check negative. | 1. On Roadway       | 20. Motor Vehicle In Transport | No Injury (0)       | Fillmore St (PR - Town of Herndon) | Fillmore ST  | 38.974862          | -77.378469 | Town of Herndon | DRANESVILLE RD     | property damage crash | 0              | 0                         | 0                             | 0                       | 0                           | 0                 | 0 | 0 | 0 |



**Agenda Item:** Resolution 24-G-07 to approve an amendment to Special Exception SE #21-03, 1315 and 1317 Monroe Street, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District

**Meeting Date:** January 23, 2024

**Category:** Public Hearings

**Prepared by:** David Stromberg, Zoning Administrator

**Description:**

Special Exception SE #21-03 was approved by the Town Council on January 31, 2022, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District.

The amended application revises the limits of fill to accommodate revised footprints of the two proposed single family-dwellings.

**Background:**

The two lots have existed within the Town of Herndon since at least 1960, which predates the establishment of the first flood map for the Town of Herndon in February 1979. Each respective lot is 0.53 acres for a total site area of 1.06 acres. There is an existing house on 1317 Monroe Street that was built in 1970. The Special Flood Hazard Area (identified as Zone AE) runs across both properties and a portion of the existing house. This flood area is associated with Folly Lick Branch.

The already approved special exception concept plan is shown as attachment 2 and the proposed is shown as attachment 3.

The existing concept plan, the subject of the previously approved special exception, has already been approved by FEMA through a CLOMR (Conditional Letter of Map Revision, attachment 4).

The Planning Commission recommended approval with conditions at their public hearing on December 18, 2023.

**Budget Impact:**

None

**Recommendation:**

Staff recommends that the Town Council approve the amendment to Special Exception SE #21-03, in accordance with Alternative #2 for the following reasons:

- Approval will not result in an increase in flood heights or an increase in the floodplain.
- Approval will allow the demolition of a house that is partially located within the special flood hazard area.
- Approval will allow for the construction of two, new single-family dwellings on lots that meet the R-10 requirements of the zoning ordinance and are located on an existing public street.

**Attachments:**

1. Staff Report
2. Resolution (Proposed)
3. Existing Concept Plan
4. Proposed Concept Plan
5. FEMA CLOMR
6. Flood Plain Study Results

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## STAFF REPORT

**Agenda Item:** Resolution to approve an amendment to Special Exception SE #21-03, 1315 and 1317 Monroe Street, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District

**Meeting Date:** January 23, 2024

**Staff Contact:** David Stromberg, AICP, Zoning Administrator

**Summary Information:**

|                               |                                                                                                                                                                                                                                                                                                                                                                       |  |                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------|
| Proposed Modification         | Special Exception SE #21-03 was approved by the town council on January 31, 2022, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District. The amended application revises the limits of fill to accommodate revised footprints of the two proposed single family dwellings. |  |                   |
| Address                       | 1315 and 1317 Monroe Street, Herndon, VA                                                                                                                                                                                                                                                                                                                              |  |                   |
| Fairfax County Tax Map Number | 0105 02 0001B and 0102 02 0001C                                                                                                                                                                                                                                                                                                                                       |  |                   |
| Applicant/Owners              | Dina Abdel-Hamid and David Hawa                                                                                                                                                                                                                                                                                                                                       |  |                   |
| Total Site Area               | 1.06 acres (1317 Monroe – 0.53 acres and 1315 Monroe – 0.53 acres)                                                                                                                                                                                                                                                                                                    |  |                   |
| Property Use                  | Single-family residential/vacant                                                                                                                                                                                                                                                                                                                                      |  |                   |
| Zoning District               | R-10, Single-Family Residential, FPO, Floodplain Overlay District                                                                                                                                                                                                                                                                                                     |  |                   |
| Adjacent Zoning               | <b>North:</b> R-10                                                                                                                                                                                                                                                                                                                                                    |  | <b>East:</b> R-10 |
|                               | <b>South:</b> R-10                                                                                                                                                                                                                                                                                                                                                    |  | <b>West:</b> FFX  |
| Land Use Designation          | Neighborhood Conservation                                                                                                                                                                                                                                                                                                                                             |  |                   |
| Flood Map Effective Date      | September 17, 2010                                                                                                                                                                                                                                                                                                                                                    |  |                   |
| Community Flood Number        | 510052                                                                                                                                                                                                                                                                                                                                                                |  |                   |
| Flood Map Panel               | 51059C0110E                                                                                                                                                                                                                                                                                                                                                           |  |                   |



**Location Map:**



**Background & Site Description:**

The two lots have existed within the Town of Herndon since at least 1960, which predates the establishment of the first flood map for the Town of Herndon in February 1979. Each respective lot is 0.53 acres for a total site area of 1.06 acres. There is an existing house on 1317 Monroe Street that was built in 1970. The Special Flood Hazard Area (identified as Zone AE) runs across both properties and a portion of the existing house. This flood area is associated with Folly Lick Branch.

The already approved special exception concept plan is shown in the attachment labeled 'Existing Concept Plan'.

The existing concept plan, the subject of the previously approved special exception, has already been approved by FEMA through a CLOMR (Conditional Letter of Map Revision) and can be found attached labeled as 'FEMA CLOMR'.

### **Case Details & Proposal:**

This amendment will replace condition #1 to reference the new concept plan with the expanded areas of fill (attached and labeled as 'Proposed Concept Plan').

The planning commission recommended approval with conditions at their public hearing on December 18, 2023.

### **Staff Analysis:**

#### Zoning Ordinance Compliance

A complete background and analysis of this application is contained in the December 6, 2021, town council staff report. Staff, the planning commission, and town council determined that the application complied with the criteria of Section 78-153.3(e), Review Standards for Special Exceptions.

Amending the application to reference the new concept plan is still in complete compliance with all review criteria found in Section 78-153.3(e).

The existing concept plan will remain in effect if the amendment to SE #21-03 is denied.

#### Flood Regulations

The National Flood Insurance Program (NFIP) is managed by the Federal Emergency Management Agency (FEMA). A community must have a locally adopted floodplain ordinance that complies with the Code of Federal Regulations (44 CFR parts 60, 65, and 72) in order for any property located within that community to be eligible for flood insurance.

Any proposed development in the floodplain that may have an impact on the floodplain must first have a Conditional Letter of Map Revision (CLOMR) submitted and reviewed by FEMA. This review includes whether the proposed development will result in an increase in the Base Flood Elevation (BFE) or an increase in the extent of the floodplain. Following completion of a project, an as-built plan must be submitted with a Letter of Map Revision (LOMR) that is endorsed by the community's floodplain administrator. The floodplain will be officially revised at that point.

FEMA has already issued the CLOMR and will only need to review the as-built conditions upon completion of the project.

**Fiscal Impact:**

The original approval allowed for physical improvements that add to the residential tax base. The amendment will also result in an increase to the residential tax base.

**Town Council Alternatives:**

The following alternatives are available to the town council for its decision on SE #21-03 - AMENDMENT

1. Recommendation for approval.
2. Recommendation for approval with conditions.
3. Recommendation for denial.
4. Continuance of the application to February 13, 2024.

**Staff Recommendation:**

Staff recommends that the town council approve the amendment to Special Exception SE #21-03, in accordance with Alternative #2 for the following reasons:

- Approval will not result in an increase in flood heights or an increase in the floodplain.
- Approval will allow the demolition of a house that is partially located within the special flood hazard area.
- Approval will allow for the construction of two, new single-family dwellings on lots that meet the R-10 requirements of the zoning ordinance and are located on an existing public street.



**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution- to approve an amendment to Special Exception SE #21-03, 1315 and 1317 Monroe Street, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District**

The applicants, Dina Abdel-Hamid and David Hawa, have submitted a request for a special exception amendment to revise the limits of fill to accommodate revised footprints of the two proposed single-family dwellings at 1315 and 1317 Monroe Street, further identified as Fairfax County Tax Map # 0102 02 0001B and 0102 02 0001C.

Special exception SE #21-03 was originally approved by the town council on January 31, 2022, to allow the placement of fill in order to construct two new single-family dwellings on two existing lots within the Floodplain Overlay District.

Following the public hearing, the planning commission has recommended that the application to amend the special exception be approved with conditions based upon the finding that the proposed use meets the purpose and intent of the zoning ordinance.

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 recommended that the application be approved with amended conditions based upon the finding that the amended conditions still meet the purpose and intent of the Zoning Ordinance, in particular Section 78-155.3(f)(3).

**THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Herndon, Virginia that:

1. The Town Council approves of amending Special Exception Application SE #21-03 that shall run with the land and not be voided or extinguished from a change in ownership of the property in accordance with the conditions set forth below to achieve compliance with the standards found in Section 78-155.3;
  - a. The proposed development shall be in substantial conformance with the concept plan entitled, "BASE PLANS LT 1C AND 1B, HERNDON 1317 & 1315 MONROE STREET HERNDON, VA 20170 3006", prepared by GeoEnv Engineers and dated August, 2023.

**24-G-07**

- b. A site specific delineation of the Resource Protection Area component of the Chesapeake Bay Preservation Area Overlay shall be provided concurrent with the submission of the single lot Development Plan and approval of this special exception does not approve any unauthorized encroachment in the ROQ as outlined in Section 78-60.4 of the zoning ordinance.
- c. The applicant shall perform new hydraulic and hydrodynamic analysis using the most recently available data.





MICHAEL E. & IRENE K. HILL  
D.B. 11238, PG. 1845  
MAP# 10-2-02-0001D  
ZONE: R-10

MARK F. ZAHURANEC  
D.B. 21498, PG. 1978  
MAP# 10-2-02-0001E  
ZONE: R-10

PARCEL D - SECTION 1  
KINGSTON CHASE  
D.B. 3794, PG. 428

FAIRFAX COUNTY PARK AUTHORITY  
D.B. 3794, PG. 450  
MAP# 10-2-04-D  
ZONE: R-3C

201.5

201.5

PARCEL J - SECTION 4  
HIDDENBROOK  
D.B. 3943, PG. 69

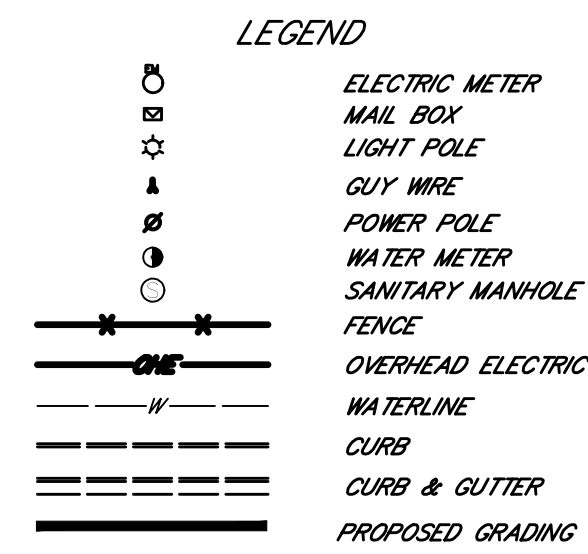
FAIRFAX COUNTY PARK AUTHORITY  
D.B. 3943, PG. 69  
MAP# 10-2-03-J  
ZONE: R-3C

**NOTES:**

1. MAP# 10-2-02-0001B & 0001C
2. OWNER: THE ESTATE OF JAMES EDWARD WATERS, JR.  
D.B. 2757, PG. 440 (MAP# 10-2-02-0001B)  
NANCY A. WATERS  
D.B. 7892, PG. 184 (MAP# 10-2-02-0001C)
3. ZONE: R-10  
SETBACKS: FRONT: 35' / SIDE: 10' / REAR: 25'
4. TITLE REPORT PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY  
FILE NO. FE-VIA21-0015, EFFECTIVE DATE: JANUARY 25, 2021 AT 12:08 P.M.  
(SEE SCHEDULE B - SECTION 2 EXCEPTIONS BELOW)
5. F.E.M.A. / F.I.R.M. FLOOD DATA: COMMUNITY NO: 51059C  
H & I PANEL NO: 0110 E  
FLOOD ZONE: X, X "SHADED" AND AE  
EFFECTIVE: SEPTEMBER 17, 2010
6. VERTICAL DATUM = NGVD 29 TIED TO TOWN OF HERNDON AS-BUILT SANITARY  
SEWER FOR DOMINION RIDGE SUBDIVISION, AND FAIRFAX COUNTY AS-BUILT SANITARY  
SEWER FOR 21" TRUNK SEWER LINE ALONG FOLLY LICK BRANCH
7. TOPOGRAPHIC SURVEY FIELD RUN BY THIS OFFICE JANUARY 2021.
8. FLOOD PLAIN LIMIT DETERMINED BY ELEVATION INTERPOLATION AT 0.1' INTERVALS  
BETWEEN 296 / 297 / 298 FLOOD ELEVATION LINES PER FEMA / FIRM FLOOD MAP.

SCHEDULE B – SECTION 2 EXCEPTIONS:

11. ESM'T(S) AND MATTERS AS SHOWN ON AND/OR NOTED ON RECORD PLAT (NONE)
12. MINERALS OF WHATSOEVER KIND, SUBSURFACE AND SURFACE SUBSTANCES, INCLUDING BUT NOT LIMITED TO COAL, LIGNITE, OIL, GAS, URANIUM, CLAY, ROCK, SAND AND GRAVEL OR, ON, UNDER AND THAT MAY BE PRODUCED FROM THE LAND TOGETHER WITH ALL RIGHTS, PRIVILEGES, AND IMMUNITIES RELATING THERETO, WHETHER OR NOT APPEARING IN THE PUBLIC RECORDS OR LISTED IN SCHEDULE B. THE COMPANY MAKES NO REPRESENTATION AS TO THE PRESENT OWNERSHIP OF ANY SUCH INTERESTS. THERE MAY BE LEASES, GRANTS, EXCEPTIONS OR RESERVATIONS OF INTERESTS THAT ARE NOT LISTED.  
(NO COMMENT)
13. TERMS, PROVISIONS AND ESM'T(S)  
D.B. 3253, PG. 684 (SANITARY SEWER EASEMENT SHOWN)



PROPERTY OF  
THE ESTATE OF  
JAMES EDWARD WATERS, JR.  
D.B. 2257, PG. 440 (MAP# 10-2-02-0001B)  
AND  
NANCY A. WATERS  
D.B. 7892, PG. 184 (MAP# 10-2-02-0001C)  
HERNDON  
FAIRFAX COUNTY,

PRELIMINARY / REVIEW ISSUE  
TOPOGRAPHIC SURVEY,  
FLOOD ELEVATION  
AND LOT STUDY

[illegible]

PM: IB SCALE: 1"=20'  
PE: IB DATE: June 1, 202  
CO: SMK SHEET 1 OF 1









# Federal Emergency Management Agency

Washington, D.C. 20472

## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT

| COMMUNITY INFORMATION                                 |                                                       | PROPOSED PROJECT DESCRIPTION                                                       | BASIS OF CONDITIONAL REQUEST                      |
|-------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------|
| COMMUNITY                                             | Town of Herndon<br>Fairfax County<br>Virginia         | GRADING                                                                            | 1D HYDRAULIC ANALYSIS<br>UPDATED TOPOGRAPHIC DATA |
|                                                       | COMMUNITY NO.: 510052                                 |                                                                                    |                                                   |
| IDENTIFIER                                            | The Estate James Edward Waters, Jr. & Nancy A. Waters | APPROXIMATE LATITUDE AND LONGITUDE: 38.988, -77.384<br>SOURCE: Other DATUM: NAD 83 |                                                   |
| AFFECTED MAP PANEL                                    |                                                       |                                                                                    |                                                   |
| TYPE: FIRM* NO.: 51059C0110E DATE: September 17, 2010 |                                                       | * FIRM - Flood Insurance Rate Map                                                  |                                                   |

### FLOODING SOURCE AND REACH DESCRIPTION

Folly Lick Branch – From approximately 3,420 feet upstream of Dranesville Road to approximately 3,930 feet upstream of Dranesville Road

### PROPOSED PROJECT DESCRIPTION

| Flooding Source   | Proposed Project | Location of Proposed Project                                                                                                              |
|-------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Folly Lick Branch | Grading          | On the right overbank from approximately 3,640 feet upstream of Dranesville Road to approximately 3,810 feet upstream of Dranesville Road |

### SUMMARY OF IMPACTS TO FLOOD HAZARD DATA

| Flooding Source   | Effective Flooding | Proposed Flooding | Increases | Decreases |
|-------------------|--------------------|-------------------|-----------|-----------|
| Folly Lick Branch | Zone AE            | Zone AE           | Yes       | Yes       |
|                   | BFEs*              | BFEs              | Yes       | Yes       |
|                   | Zone X (shaded)    | Zone X (shaded)   | Yes       | Yes       |

\* BFEs - Base (1-percent-annual-chance) Flood Elevations

### COMMENT

This document provides the Federal Emergency Management Agency's (FEMA's) comment regarding a request for a CLOMR for the project described above. This document is not a final determination; it only provides our comment on the proposed project in relation to the flood hazard information shown on the effective National Flood Insurance Program (NFIP) map. We reviewed the submitted data and the data used to prepare the effective flood hazard information for your community and determined that the proposed project meets the minimum floodplain management criteria of the NFIP. Your community is responsible for approving all floodplain development and for ensuring that all permits required by Federal or State/Commonwealth law have been received. State/Commonwealth, county, and community officials, based on their knowledge of local conditions and in the interest of safety, may set higher standards for construction in the Special Flood Hazard Area (SFHA), the area subject to inundation by the base flood). If the State/Commonwealth, county, or community has adopted more restrictive or comprehensive floodplain management criteria, these criteria take precedence over the minimum NFIP criteria.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

22-03-0774R

104



# Federal Emergency Management Agency

Washington, D.C. 20472

## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

### OTHER COMMUNITIES AFFECTED BY THIS CONDITIONAL REQUEST

**CID Number: 515525**

**Name: Fairfax County, Virginia**

#### AFFECTED MAP PANELS

TYPE: FIRM

NO.: 51059C0110E

DATE: September 17, 2010

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

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22-03-0774R

104





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## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION

To determine the changes in flood hazards that will be caused by the proposed project, we compared the hydraulic modeling reflecting the proposed project (referred to as the proposed conditions model) to the hydraulic modeling used to prepare the Flood Insurance Study (FIS) (referred to as the effective model). If the effective model does not provide enough detail to evaluate the effects of the proposed project, an existing conditions model must be developed to provide this detail. This existing conditions model is then compared to the effective model and the proposed conditions model to differentiate the increases or decreases in flood hazards caused by more detailed modeling from the increases or decreases in flood hazards that will be caused by the proposed project.

The table below shows the changes in the BFEs:

BFE Comparison Table

| Flooding Source: Folly Lick Branch |                  | BFE Change (feet) | Location of maximum change                            |
|------------------------------------|------------------|-------------------|-------------------------------------------------------|
| Existing vs.<br>Effective          | Maximum increase | 0.6               | Approximately 3,630 feet upstream of Dranesville Road |
|                                    | Maximum decrease | 0.4               | Approximately 3,920 feet upstream of Dranesville Road |
| Proposed vs.<br>Existing           | Maximum increase | None              | Not Applicable                                        |
|                                    | Maximum decrease | 0.01              | Approximately 3,630 feet upstream of Dranesville Road |
| Proposed vs.<br>Effective          | Maximum increase | 0.6               | Approximately 3,630 feet upstream of Dranesville Road |
|                                    | Maximum decrease | 0.4               | Approximately 3,920 feet upstream of Dranesville Road |

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

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104



# Federal Emergency Management Agency

Washington, D.C. 20472

## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION (CONTINUED)

#### DATA REQUIRED FOR FOLLOW-UP LOMR

Upon completion of the project, your community must submit the data listed below and request that we make a final determination on revising the effective FIRM. If the project is built as proposed and the data below are received, a revision to the FIRM would be warranted.

- Detailed application and certification forms must be used for requesting final revisions to the maps. Therefore, when the map revision request for the area covered by this letter is submitted, Form 1, entitled "Overview and Concurrence Form," must be included. A copy of this form may be accessed at <https://www.fema.gov/flood-maps/change-your-flood-zone/paper-application-forms/mt-2>.
- The detailed application and certification forms listed below may be required if as-built conditions differ from the proposed plans. If required, please submit new forms, which may be accessed at <https://www.fema.gov/flood-maps/change-your-flood-zone/paper-application-forms/mt-2>, or annotated copies of the previously submitted forms showing the revised information.

Form 2, entitled "Riverine Hydrology and Hydraulics Form." Hydraulic analyses for as-built conditions of the base flood, the 10-percent, 2-percent, and 0.2-percent-annual-chance floods must be submitted with Form 2.

- A certified topographic work map showing the revised and effective base and 0.2-percent-annual-chance floodplain boundaries. Please ensure that the revised information ties in with the current effective information at the downstream and upstream ends of the revised reach and any tributaries.
- An annotated copy of the FIRM, at the scale of the effective FIRM, that shows the revised base and 0.2-percent-annual-chance floodplain boundary delineations shown on the submitted work map and how they tie-in to the base and 0.2-percent-annual-chance floodplain boundary delineations shown on the current effective FIRM at the downstream and upstream ends of the revised reach, as well as any tributaries.
- As-built plans, certified by a registered Professional Engineer, of all proposed project elements.
- Documentation of the individual legal notices sent to property owners who will be affected by any widening or shifting of the base floodplain and/or any BFE increases along Folly Lick Branch.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

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Engineering Services Branch  
Federal Insurance and Mitigation Administration



# Federal Emergency Management Agency

Washington, D.C. 20472

## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION (CONTINUED)

#### DATA REQUIRED FOR FOLLOW-UP LOMR (continued)

• FEMA's fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps may be accessed at <https://www.fema.gov/flood-maps/change-your-flood-zone/status/flood-map-related-fees>. The fee at the time of the map revision submittal must be received before we can begin processing the request. Payment of this fee can be made through a check or money order, made payable in U.S. funds to the National Flood Insurance Program, or by credit card (Visa or MasterCard only). Please either forward the payment, along with the revision application, to the following address:

LOMC Clearinghouse  
Attention: LOMR Manager  
3601 Eisenhower Avenue, Suite 500  
Alexandria, Virginia 22304-6426

or submit the LOMR and fee using the Online LOMC portal at: <https://hazards.fema.gov/femaportal/onlineLOMC/signin>

After receiving appropriate documentation to show that the project has been completed, FEMA will initiate a revision to the FIRM. Because the flood hazard information (i.e., base flood elevations, base flood depths, SFHAs, zone designations, and/or regulatory floodways) will change as a result of the project, a 90-day appeal period will be initiated for the revision, during which community officials and interested persons may appeal the revised flood hazard information based on scientific or technical data.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

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22-03-0774R

104





# Federal Emergency Management Agency

Washington, D.C. 20472

## CONDITIONAL LETTER OF MAP REVISION COMMENT DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION (CONTINUED)

#### COMMUNITY REMINDERS

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

April Cummings  
Director, Mitigation Division  
Federal Emergency Management Agency, Region III  
One Independence Mall, Sixth Floor  
615 Chestnut Street  
Philadelphia, PA 19106-4404  
(215) 931-5635

A preliminary study is being conducted for Fairfax County. Preliminary copies of the revised FIRM and FIS report were submitted to your community for review on June 30, 2021, and may become effective before the revision request following this CLOMR is submitted. Please ensure that the data submitted for the revision ties into the data effective at the time of the submittal.

This comment is based on the flood data presently available. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on the FEMA website at <https://www.fema.gov/flood-insurance>.

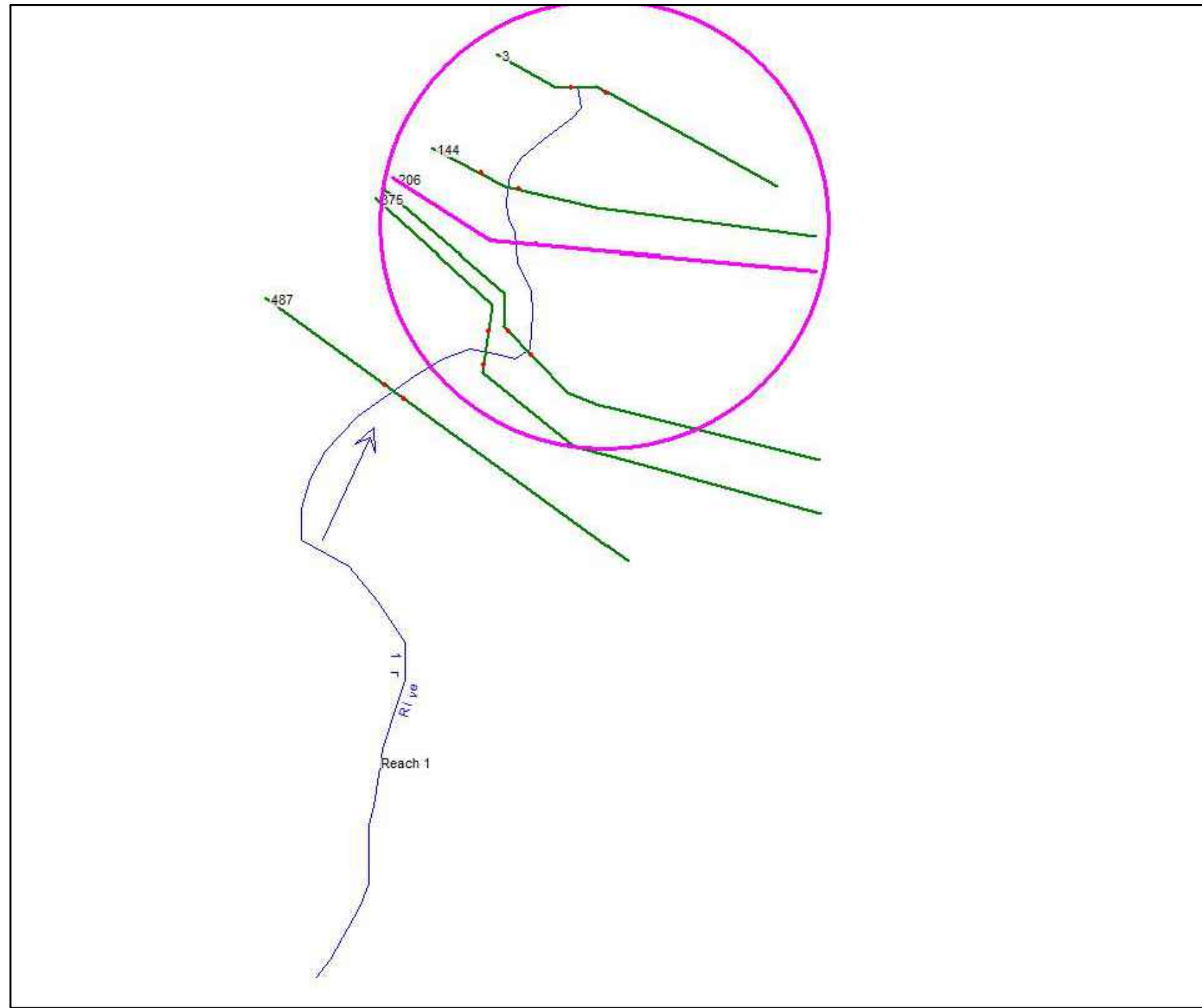
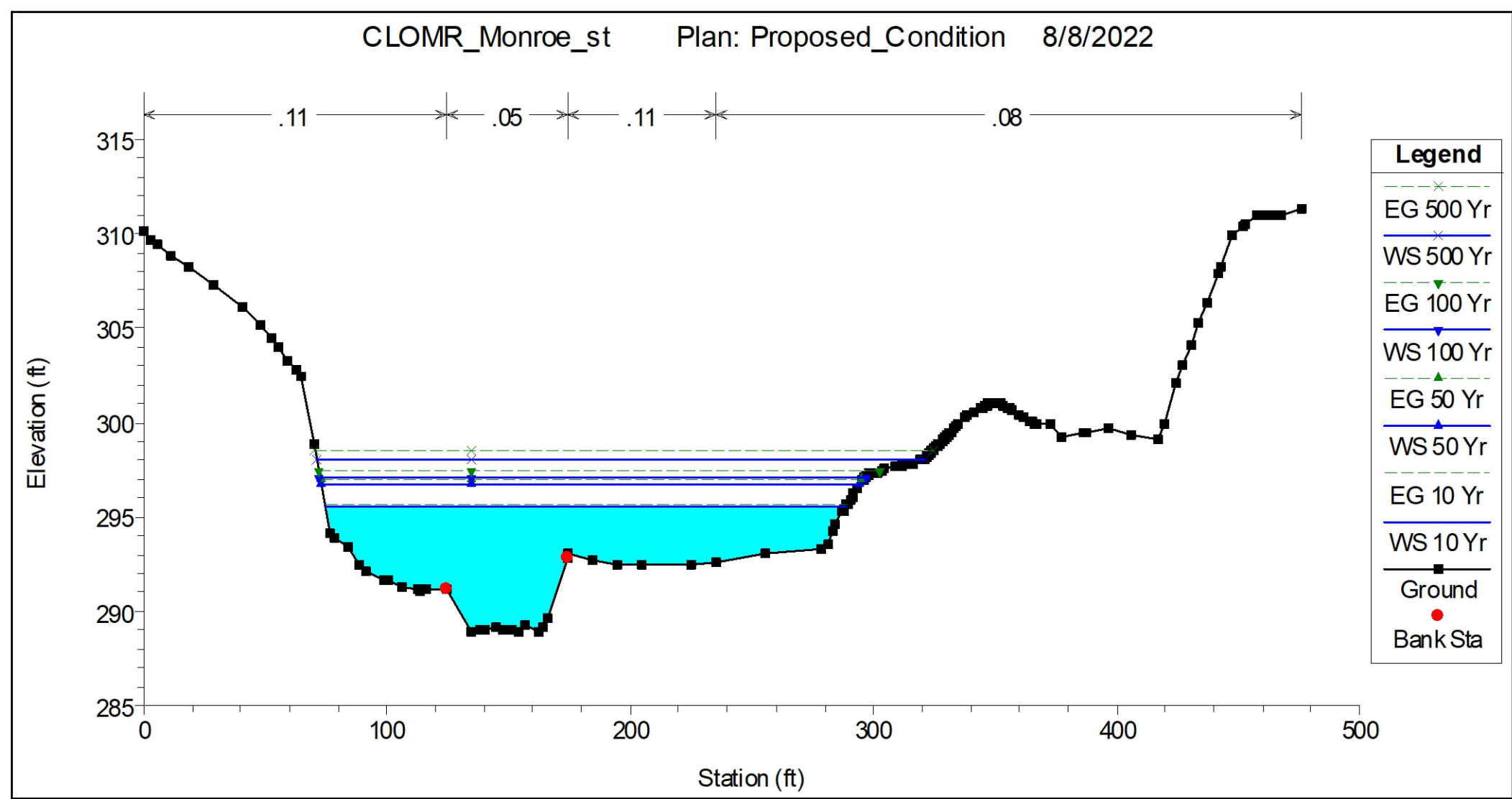
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Federal Insurance and Mitigation Administration

22-03-0774R

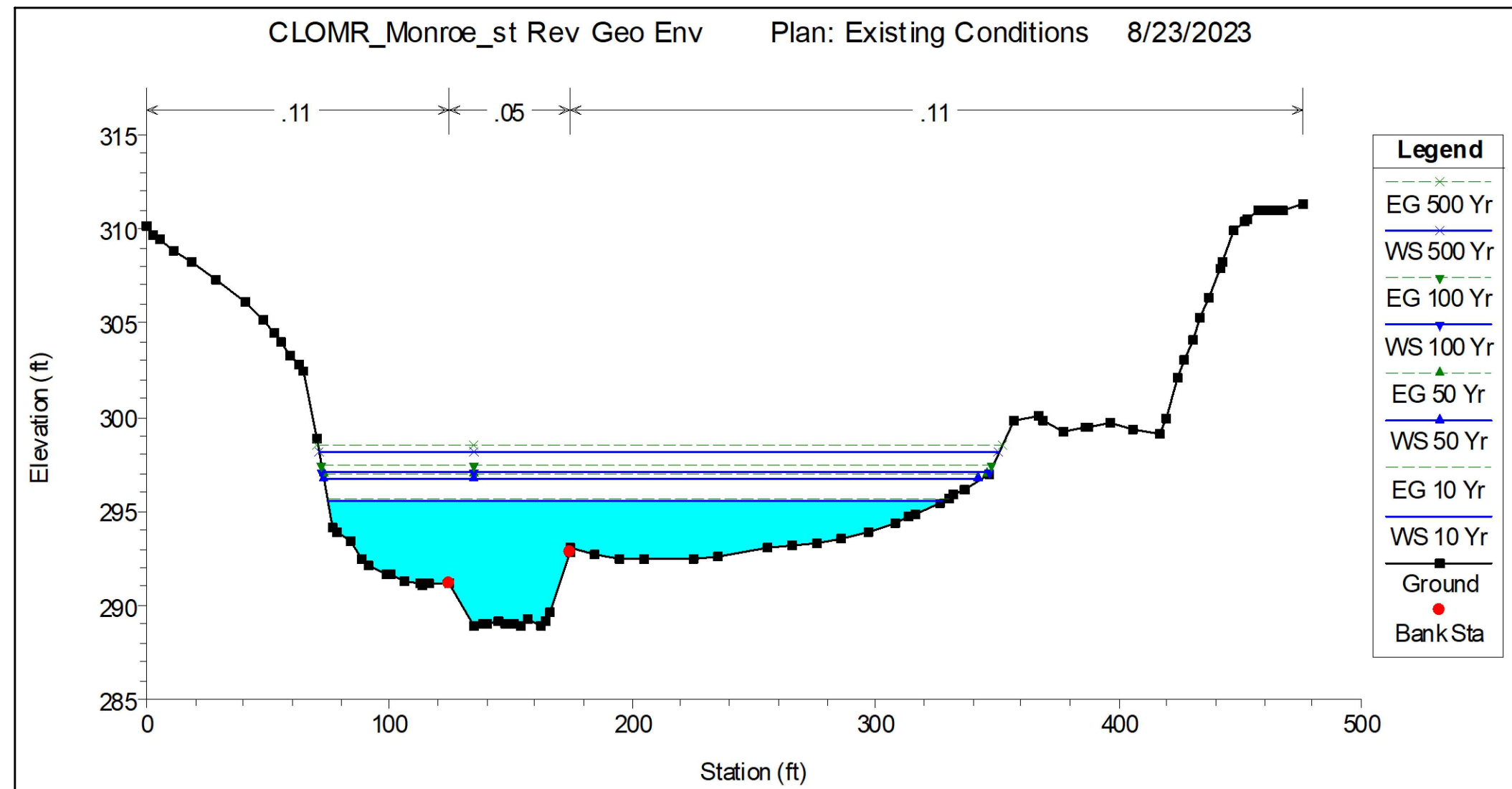
104



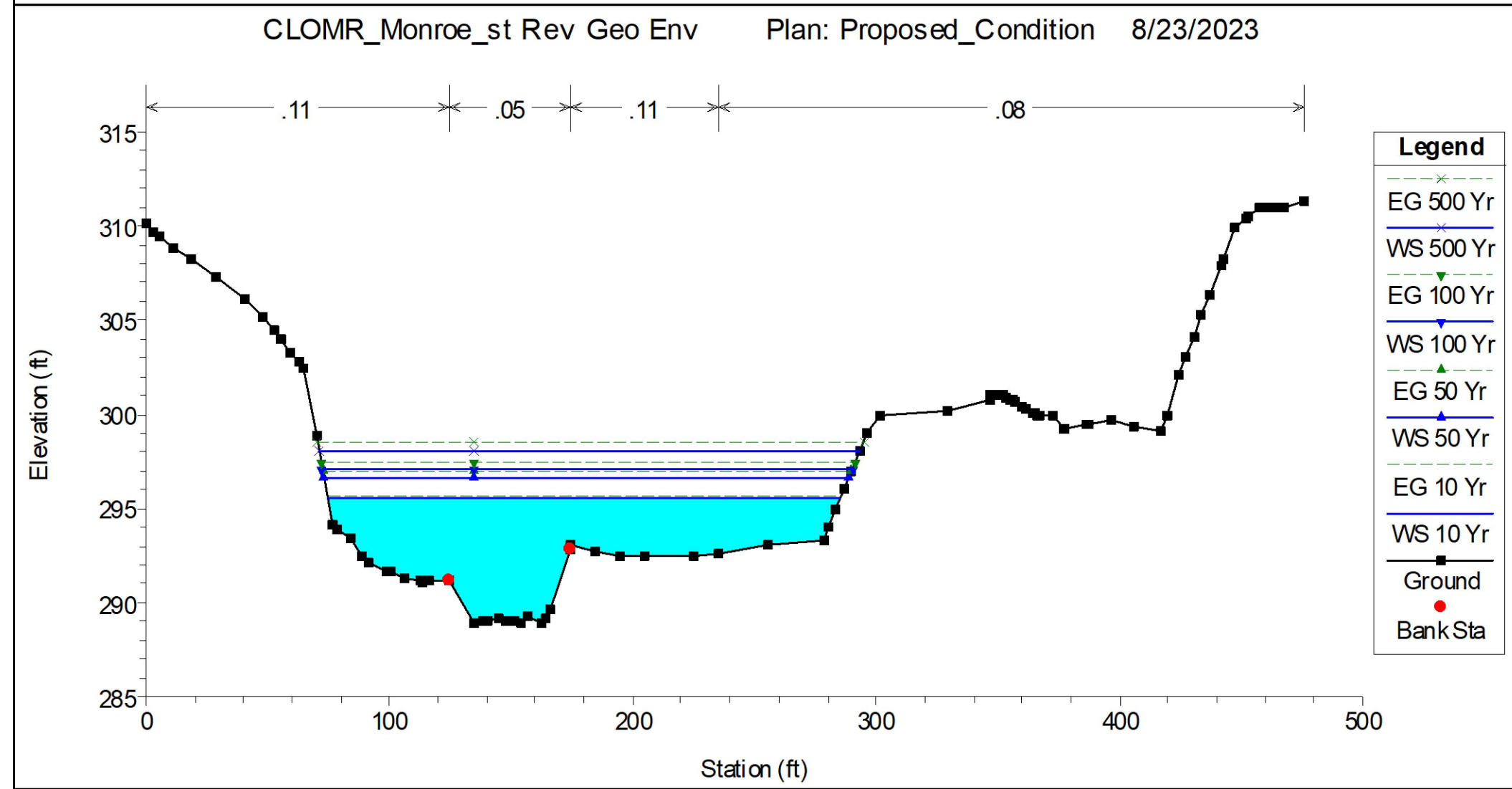
| HEC-RAS Plan: Proposed River: River 1 Reach: Reach 1 |           |         |                  |                   |                   |                   |                   |                       |                    |                      |                   |              |
|------------------------------------------------------|-----------|---------|------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|--------------------|----------------------|-------------------|--------------|
| Reach                                                | River Sta | Profile | Q Total<br>(cfs) | Min Ch El<br>(ft) | W.S. Elev<br>(ft) | Crit W.S.<br>(ft) | E.G. Elev<br>(ft) | E.G. Slope<br>(ft/ft) | Vel Chnl<br>(ft/s) | Flow Area<br>(sq ft) | Top Width<br>(ft) | Froude # Chl |
| Reach 1                                              | 487       | 10 Yr   | 1800.00          | 289.90            | 296.44            | 296.44            | 297.77            | 0.013016              | 10.47              | 410.31               | 191.23            | 0.78         |
| Reach 1                                              | 487       | 50 Yr   | 2900.00          | 289.90            | 297.22            | 297.22            | 299.18            | 0.017768              | 13.35              | 567.94               | 220.27            | 0.94         |
| Reach 1                                              | 487       | 100 Yr  | 3400.00          | 289.90            | 298.11            | 298.11            | 299.70            | 0.013128              | 12.53              | 786.08               | 253.86            | 0.86         |
| Reach 1                                              | 487       | 500 Yr  | 4700.00          | 289.90            | 298.95            | 298.95            | 300.80            | 0.014365              | 14.11              | 1005.75              | 288.44            | 0.88         |
| Reach 1                                              | 375       | 10 Yr   | 1800.00          | 289.30            | 295.80            |                   | 296.16            | 0.003665              | 5.75               | 622.90               | 209.35            | 0.42         |
| Reach 1                                              | 375       | 50 Yr   | 2900.00          | 289.30            | 297.00            |                   | 297.47            | 0.004086              | 6.87               | 910.44               | 271.04            | 0.46         |
| Reach 1                                              | 375       | 100 Yr  | 3400.00          | 289.30            | 297.47            |                   | 297.97            | 0.004719              | 7.25               | 1047.37              | 303.15            | 0.46         |
| Reach 1                                              | 375       | 500 Yr  | 4700.00          | 289.30            | 298.52            |                   | 299.08            | 0.004267              | 7.99               | 1373.96              | 322.70            | 0.48         |
| Reach 1                                              | 327       | 10 Yr   | 1800.00          | 287.67            | 295.74            |                   | 295.98            | 0.002357              | 4.87               | 693.67               | 215.02            | 0.34         |
| Reach 1                                              | 327       | 50 Yr   | 2900.00          | 287.67            | 296.92            |                   | 297.26            | 0.002680              | 6.01               | 975.57               | 259.77            | 0.38         |
| Reach 1                                              | 327       | 100 Yr  | 3400.00          | 287.67            | 297.39            |                   | 297.76            | 0.003020              | 6.40               | 1099.49              | 271.59            | 0.39         |
| Reach 1                                              | 327       | 500 Yr  | 4700.00          | 287.67            | 298.41            |                   | 298.87            | 0.003318              | 7.25               | 1383.61              | 283.91            | 0.42         |
| Reach 1                                              | 206       | 10 Yr   | 1800.00          | 288.93            | 295.54            |                   | 295.72            | 0.001794              | 4.07               | 768.80               | 213.83            | 0.29         |
| Reach 1                                              | 206       | 50 Yr   | 2900.00          | 288.93            | 296.68            |                   | 296.94            | 0.002164              | 5.03               | 1017.36              | 221.20            | 0.33         |
| Reach 1                                              | 206       | 100 Yr  | 3400.00          | 288.93            | 297.13            |                   | 297.42            | 0.002286              | 5.38               | 1117.96              | 224.30            | 0.35         |
| Reach 1                                              | 206       | 500 Yr  | 4700.00          | 288.93            | 298.09            |                   | 298.49            | 0.002723              | 6.37               | 1344.98              | 250.35            | 0.39         |
| Reach 1                                              | 144       | 10 Yr   | 1800.00          | 288.42            | 295.11            | 293.71            | 295.53            | 0.004600              | 5.96               | 525.81               | 193.11            | 0.46         |
| Reach 1                                              | 144       | 50 Yr   | 2900.00          | 288.42            | 296.14            |                   | 296.72            | 0.005361              | 7.25               | 732.07               | 207.20            | 0.51         |
| Reach 1                                              | 144       | 100 Yr  | 3400.00          | 288.42            | 296.55            |                   | 297.19            | 0.005551              | 7.70               | 820.04               | 212.40            | 0.53         |
| Reach 1                                              | 144       | 500 Yr  | 4700.00          | 288.42            | 297.42            |                   | 298.22            | 0.006188              | 8.83               | 1008.49              | 220.38            | 0.57         |
| Reach 1                                              | 3         | 10 Yr   | 1800.00          | 288.83            | 294.10            | 293.59            | 294.69            | 0.008397              | 7.27               | 475.39               | 214.22            | 0.61         |
| Reach 1                                              | 3         | 50 Yr   | 2900.00          | 288.83            | 295.20            | 294.34            | 295.85            | 0.007753              | 8.11               | 720.87               | 230.37            | 0.61         |
| Reach 1                                              | 3         | 100 Yr  | 3400.00          | 288.83            | 295.70            | 294.68            | 296.35            | 0.007163              | 8.26               | 837.18               | 235.12            | 0.60         |
| Reach 1                                              | 3         | 500 Yr  | 4700.00          | 288.83            | 296.50            | 295.37            | 297.29            | 0.007821              | 9.38               | 1028.09              | 241.95            | 0.64         |



| HEC-RAS Plan: Ex. Cont. River: River 1 Reach: Reach 1 |           |         |                  |                   |                   |                   |                   |                       |                    |                      |                   |              |
|-------------------------------------------------------|-----------|---------|------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|--------------------|----------------------|-------------------|--------------|
| Reach                                                 | River Sta | Profile | Q Total<br>(cfs) | Min Ch El<br>(ft) | W.S. Elev<br>(ft) | Crit W.S.<br>(ft) | E.G. Elev<br>(ft) | E.G. Slope<br>(ft/ft) | Vel Chnl<br>(ft/s) | Flow Area<br>(sq ft) | Top Width<br>(ft) | Froude # Chl |
| Reach 1                                               | 487       | 10 Yr   | 1800.00          | 289.90            | 296.44            | 296.44            | 297.77            | 0.013016              | 10.47              | 410.31               | 191.23            | 0.76         |
| Reach 1                                               | 487       | 50 Yr   | 2900.00          | 289.90            | 297.22            | 297.22            | 299.18            | 0.017768              | 13.55              | 567.94               | 220.27            | 0.94         |
| Reach 1                                               | 487       | 100 Yr  | 3400.00          | 289.90            | 298.11            | 298.11            | 299.70            | 0.013128              | 12.53              | 786.08               | 253.86            | 0.82         |
| Reach 1                                               | 487       | 500 Yr  | 4700.00          | 289.90            | 298.95            | 298.95            | 300.80            | 0.014365              | 14.11              | 1005.75              | 268.44            | 0.88         |
| Reach 1                                               | 375       | 10 Yr   | 1800.00          | 289.30            | 295.81            |                   | 296.16            | 0.003509              | 5.63               | 625.87               | 210.02            | 0.41         |
| Reach 1                                               | 375       | 50 Yr   | 2900.00          | 289.30            | 297.01            |                   | 297.46            | 0.003965              | 6.77               | 912.83               | 272.58            | 0.45         |
| Reach 1                                               | 375       | 100 Yr  | 3400.00          | 289.30            | 297.47            |                   | 297.97            | 0.004122              | 7.21               | 1048.91              | 303.23            | 0.46         |
| Reach 1                                               | 375       | 500 Yr  | 4700.00          | 289.30            | 298.51            |                   | 299.07            | 0.004234              | 7.96               | 1373.21              | 322.64            | 0.48         |
| Reach 1                                               | 327       | 10 Yr   | 1800.00          | 287.67            | 295.75            |                   | 295.99            | 0.002350              | 4.86               | 694.61               | 215.21            | 0.33         |
| Reach 1                                               | 327       | 50 Yr   | 2900.00          | 287.67            | 296.93            |                   | 297.27            | 0.002877              | 6.01               | 976.12               | 259.83            | 0.38         |
| Reach 1                                               | 327       | 100 Yr  | 3400.00          | 287.67            | 297.39            |                   | 297.76            | 0.003019              | 6.40               | 1099.65              | 271.36            | 0.39         |
| Reach 1                                               | 327       | 500 Yr  | 4700.00          | 287.67            | 298.40            |                   | 298.86            | 0.003359              | 7.29               | 1382.68              | 287.66            | 0.42         |
| Reach 1                                               | 206       | 10 Yr   | 1800.00          | 288.93            | 295.53            |                   | 295.72            | 0.001854              | 4.13               | 818.40               | 253.07            | 0.30         |
| Reach 1                                               | 206       | 50 Yr   | 2900.00          | 288.93            | 296.68            |                   | 296.94            | 0.002182              | 5.05               | 1119.30              | 269.60            | 0.33         |
| Reach 1                                               | 206       | 100 Yr  | 3400.00          | 288.93            | 297.14            |                   | 297.42            | 0.002275              | 5.37               | 1243.60              | 274.69            | 0.35         |
| Reach 1                                               | 206       | 500 Yr  | 4700.00          | 288.93            | 298.13            |                   | 298.48            | 0.002518              | 6.14               | 1517.70              | 279.71            | 0.37         |
| Reach 1                                               | 144       | 10 Yr   | 1800.00          | 288.42            | 295.11            | 293.71            | 295.53            | 0.004605              | 5.96               | 525.53               | 193.08            | 0.46         |
| Reach 1                                               | 144       | 50 Yr   | 2900.00          | 288.42            | 296.14            |                   | 296.72            | 0.005365              | 7.25               | 732.41               | 207.19            | 0.51         |
| Reach 1                                               | 144       | 100 Yr  | 3400.00          | 288.42            | 296.55            |                   | 297.19            | 0.005556              | 7.71               | 819.80               | 212.38            | 0.53         |
| Reach 1                                               | 144       | 500 Yr  | 4700.00          | 288.42            | 297.42            |                   | 298.22            | 0.006191              | 8.83               | 1008.30              | 220.38            | 0.57         |
| Reach 1                                               | 3         | 10 Yr   | 1800.00          | 288.83            | 294.10            | 293.59            | 294.69            | 0.008379              | 7.26               | 475.39               | 214.22            | 0.61         |
| Reach 1                                               | 3         | 50 Yr   | 2900.00          | 288.83            | 295.20            | 294.34            | 295.85            | 0.007739              | 8.10               | 720.67               | 230.37            | 0.61         |
| Reach 1                                               | 3         | 100 Yr  | 3400.00          | 288.83            | 295.70            | 294.68            | 296.35            | 0.007151              | 8.25               | 837.18               | 235.12            | 0.59         |
| Reach 1                                               | 3         | 500 Yr  | 4700.00          | 288.83            | 296.50            | 295.35            | 297.29            | 0.007809              | 9.37               | 1028.09              | 241.95            | 0.63         |



| HEC-RAS Plan: Proposed River: River 1 Reach: Reach 1 |           |         |                  |                   |                   |                   |                   |                       |                    |                      |                   |              |
|------------------------------------------------------|-----------|---------|------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|--------------------|----------------------|-------------------|--------------|
| Reach                                                | River Sta | Profile | Q Total<br>(cfs) | Min Ch El<br>(ft) | W.S. Elev<br>(ft) | Crit W.S.<br>(ft) | E.G. Elev<br>(ft) | E.G. Slope<br>(ft/ft) | Vel Chnl<br>(ft/s) | Flow Area<br>(sq ft) | Top Width<br>(ft) | Froude # Chl |
| Reach 1                                              | 487       | 10 Yr   | 1800.00          | 289.90            | 296.44            | 296.44            | 297.77            | 0.013016              | 10.47              | 410.31               | 191.23            | 0.78         |
| Reach 1                                              | 487       | 50 Yr   | 2900.00          | 289.90            | 297.22            | 297.22            | 299.18            | 0.017768              | 13.35              | 567.94               | 220.27            | 0.94         |
| Reach 1                                              | 487       | 100 Yr  | 3400.00          | 289.90            | 298.11            | 298.11            | 299.70            | 0.013128              | 12.53              | 786.08               | 253.86            | 0.82         |
| Reach 1                                              | 487       | 500 Yr  | 4700.00          | 289.90            | 298.95            | 298.95            | 300.80            | 0.014365              | 14.11              | 1005.75              | 268.44            | 0.88         |
| Reach 1                                              | 375       | 10 Yr   | 1800.00          | 289.30            | 295.80            |                   | 296.16            | 0.003662              | 5.75               | 623.11               | 209.39            | 0.42         |
| Reach 1                                              | 375       | 50 Yr   | 2900.00          | 289.30            | 297.00            |                   | 297.47            | 0.004082              | 6.87               | 910.83               | 271.30            | 0.46         |
| Reach 1                                              | 375       | 100 Yr  | 3400.00          | 289.30            | 297.47            |                   | 297.97            | 0.004167              | 7.24               | 1047.82              | 303.17            | 0.46         |
| Reach 1                                              | 375       | 500 Yr  | 4700.00          | 289.30            | 298.51            |                   | 299.08            | 0.004278              | 8.00               | 1372.51              | 322.58            | 0.48         |
| Reach 1                                              | 327       | 10 Yr   | 1800.00          | 287.67            | 295.74            |                   | 295.98            | 0.002355              | 4.87               | 693.89               | 215.06            | 0.33         |
| Reach 1                                              | 327       | 50 Yr   | 2900.00          | 287.67            | 296.93            |                   | 297.26            | 0.002878              | 6.01               | 975.97               | 259.82            | 0.38         |
| Reach 1                                              | 327       | 100 Yr  | 3400.00          | 287.67            | 297.39            |                   | 297.77            | 0.003018              | 6.40               | 1099.92              | 271.61            | 0.39         |
| Reach 1                                              | 327       | 500 Yr  | 4700.00          | 287.67            | 298.41            |                   | 298.86            | 0.003326              | 7.26               | 1382.26              | 283.85            | 0.42         |
| Reach 1                                              | 206       | 10 Yr   | 1800.00          | 288.93            | 295.54            |                   | 295.72            | 0.001808              | 4.08               | 762.61               | 210.43            | 0.30         |
| Reach 1                                              | 206       | 50 Yr   | 2900.00          | 288.93            | 296.68            |                   | 296.94            | 0.002187              | 5.05               | 1006.13              | 215.92            | 0.33         |
| Reach 1                                              | 206       | 100 Yr  | 3400.00          | 288.93            | 297.13            |                   | 297.42            | 0.002312              | 5.41               | 1103.96              | 218.04            | 0.35         |
| Reach 1                                              | 206       | 500 Yr  | 4700.00          | 288.93            | 298.10            |                   | 298.48            | 0.002661              | 6.30               | 1317.48              | 222.44            | 0.38         |
| Reach 1                                              | 144       | 10 Yr   | 1800.00          | 288.42            | 295.11            | 293.71            | 295.53            | 0.004800              | 5.96               | 525.61               | 193.11            | 0.46         |
| Reach 1                                              | 144       | 50 Yr   | 2900.00          | 288.42            | 296.14            |                   | 296.72            | 0.005390              | 7.25               | 732.68               | 207.20            | 0.51         |
| Reach 1                                              | 144       | 100 Yr  | 3400.00          | 288.42            | 296.55            |                   | 297.19            | 0.005551              | 7.70               | 820.04               | 212.40            | 0.53         |
| Reach 1                                              | 144       | 500 Yr  | 4700.00          | 288.42            | 297.42            |                   | 298.22            | 0.006188              | 8.83               | 1008.49              | 220.38            | 0.57         |
| Reach 1                                              | 3         | 10 Yr   | 1800.00          | 288.83            | 294.10            | 293.59            | 294.69            | 0.008397              | 7.27               | 475.39               | 214.22            | 0.61         |
| Reach 1                                              | 3         | 50 Yr   | 2900.00          | 288.83            | 295.20            | 294.34            | 295.85            | 0.007753              | 8.11               | 720.67               | 230.37            | 0.61         |
| Reach 1                                              | 3         | 100 Yr  | 3400.00          | 288.83            | 295.70            | 294.68            | 296.35            | 0.007163              | 8.26               | 837.18               | 235.12            | 0.60         |
| Reach 1                                              | 3         | 500 Yr  | 4700.00          | 288.83            | 296.50            | 295.37            | 297.29            | 0.007821              | 9.38               | 1028.09              | 241.95            | 0.64         |



**GeoEnv** **Engineers**  
Civil, Environmental & Geotechnical Engineering  
10875 Main Street, Suite 213  
Fairfax, VA 22030  
Tel. 703.591.7170  
Fax. 703.591.7074  
Web Site: [geoenrv1.com](http://geoenrv1.com)

|     | REVISION BLOCK |      |
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| NO. | DESCRIPTION    | DATE |

HEC-RAS 100-YR  
FLOODPLAIN MODEL  
LT 1C AND 1B, HERNDON  
1317 & 1315 MONROE STREET  
HERNDON, VA 20170 3006

|              |                                |
|--------------|--------------------------------|
| TAX MAP:     | 0102 02 0001B<br>0102 02 0001C |
| DATE:        | AUGUST, 2023                   |
| PREP. BY:    | B.S                            |
| CHECKED BY:  |                                |
| PROJECT #    |                                |
| SCALE: N.T.S |                                |
| SHEET: 2     |                                |



**Agenda Item:** Resolution 24-G-08 to provide Town Council Guidance on the development of the Town Manager's Proposed FY 2025 Budget

**Meeting Date:** January 23, 2024

**Category:** General

**Prepared by:** Marjorie Sloan, Finance Director

**Description:**

The proposed resolution is to provide the Town Manager, Town Council guidance on the development of the Town Manager's proposed FY 2025 Budget.

**Background:**

A presentation by Finance on revenue trends and budget guidance was completed at the January 2 Town Council Work Session. Following the presentation, Council discussed the current outlook and priorities for FY 2025. A formal resolution has been prepared to provide the Town Manager guidance by the Town Council for the FY 2025 Budget.

**Budget Impact:**

None

**Recommendation:**

Staff recommends adoption of the proposed FY 2025 Budget Guidance Resolution.

**Attachments:**

1. Resolution (Proposed)
2. Town Council Guidance - Proposed FY 2025 Budget



**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution-     to provide the Town Manager, Town Council Guidance on the  
development of the Town Manager's Proposed FY 2025 Budget**

The Town Council is committed to providing the core services expected of a municipal government, providing quality services and facilities for residents and businesses of the town, and continuously improving town government effectiveness and efficiency.

The Town Council is committed to maintaining the town's fiscal integrity and recognizes the FY 2025 budget priorities for funding must be set.

**THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Herndon, Virginia that:

1. The "Town Council Guidance for the Town Manager's Proposed FY 2025 Budget" dated January 23, 2024, is adopted.

**TOWN OF HERNDON**  
**Town Council Guidance for**  
**Town Manager's Proposed FY 2025 Budget**

**Continue efforts to develop and maintain a strong fiscal position.**

- Prepare a balanced annual budget that addresses the rising costs associated with maintaining competitive workforce, on-going funding for the town-wide service delivery and capital projects along with the additional revenue appropriations needed to meet them.

**Develop a revenue plan to meet the various challenges associated with maintaining current levels of service.**

- Consider proposed increases to Real Estate and/or Meals tax rates to meet critical expenditure requirements.
- Focus on finding external funding sources for capital expenditures whenever practicable.
- Explore updating fee structures consistent with other jurisdictions.
- Continue executing the previously approved capital expenditure plan that utilizes American Rescue Plan Act (ARPA) funding prior to the sunset dates established by Federal law.

**Continue to adequately invest in the town's capital assets.**

- Emphasize the funding of life cycle maintenance that provides a comprehensive assessment of the town's overall exposure along with the revenue stream needed to properly maintain town assets.
- Continue targeting American Rescue Plan Act (ARPA) funding toward capital needs.
- Continue to address the impacts of transportation projects.
- Advancing implementation of the town's downtown redevelopment plan.

**Address problems with recruiting and retaining employees in a highly competitive labor market.**

- Continue emphasis on maintaining a competitive employment position in the local market, to include:
  - Appropriate market-based changes to the salary structure.
  - Continued emphasis on the pay-for-performance program.

- Fund activities that will demonstrate a commitment to, and investment in, the town's employees, to include mental health and personal counselling support, educational reimbursement, supporting certification opportunities, and training.
- Addressing rising health care and pension costs.
- Continuing employee skills development and education, with an emphasis on leadership development and succession planning.

**Continue focus on strategic planning.**

- Work with Council on strategic concepts, to include developing a fiscal plan to pay to incorporate ideas aligned with the adopted Strategic Plan into town operations.
- Incorporate appropriations consistent with the Community Cultural Festivals Policy

**Develop a plan for adverse changes to the economic climate.**

- Create flexibility to react to potential negative effects to the economic climate while maintaining service levels.
- Continue forward looking budget preparation in support of creative ways to attract and retain town businesses.

**Propose Balanced Enterprise Fund Budgets That Limit the Use of Retained Earnings**

**Water and Sewer**

- Develop a rate plan and propose appropriate rate increases that will balance revenues with cost increases related to higher commodity costs, inflationary pressures, added regulation, and increased need to replace existing infrastructure.
- Proactively address increasing problems with the existing water and sewer infrastructure.

**Golf Course**

- Account for the various inflationary pressures affecting the Fund; analyze the marketplace and determine price elasticity for the operation.
- Support the Master Plan project and review potential Clubhouse enhancements.



### Chestnut Grove Cemetery

- Support the construction of additional acreage that will yield increased inventory.
- Account for the various inflationary pressures affecting the Fund.
- Use best practices to cover operational revenue shortfalls while the additional inventory is being brought online.

**Agenda Item:** Resolution 24-G-09 to approve a revision to the approved Master Plan, for the Chestnut Grove Cemetery, an element within the Comprehensive Plan of the Town of Herndon

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Randy Schell Chief Program and Project Manager, Cynthia Hoftiezer, Deputy Director Parks and Rec

**Description:**

This is a request to approve a revision to the Master Plan for Chestnut Grove Cemetery.

**Background:**

Circa 1872, the Chestnut Grove Cemetery was established as a private operation. Circa 1972, the zoning ordinance was revised to require a conditional use permit for the operation of a cemetery.

On June 10, 1997, Conditional Use Permit #97-1 was adopted by the Town Council that required approval of a Master Plan for the cemetery.

The Chestnut Grove Cemetery and its operation were transferred to the Town of Herndon on September 30, 1997 via a deed of gift. The Town then undertook the creation of a master plan for the cemetery.

The original master plan for the cemetery, dated April 1, 1999, and prepared by consultants Lewis Scully Gionet, Inc., Myers Schmalenberger Meisner, and the L. F. Slone Consulting Group, was approved by the Town Council with CPA #99-2 on July 13, 1999 as an addendum to the Town's Comprehensive Plan.

In 2023, due to changing burial customs, Parks & Recreation seeks to revise the original master plan for the remaining 4+ undeveloped acres of the cemetery to meet current requirements. The Tribute Company was contracted to create a new master plan for this area. The master plan by The Tribute Company, dated November 14, 2023, meets the current needs of the cemetery and is being presented to the Town Council for approval.

**Budget Impact:**

There is no fiscal impact with approval of this master plan revision. Funds for the construction of the infrastructure to support this new master plan are a part of the

current Capital Improvement Program as project #11-PR-15-001, Chestnut Grove Cemetery.

**Recommendation:**

Staff recommends approval of the Chestnut Grove Cemetery Master Plan revision, dated November 14, 2023 and prepared by consultants The Tribute Company.

**Attachments:**

1. Resolution (Proposed)
2. Revised Master Plan



**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

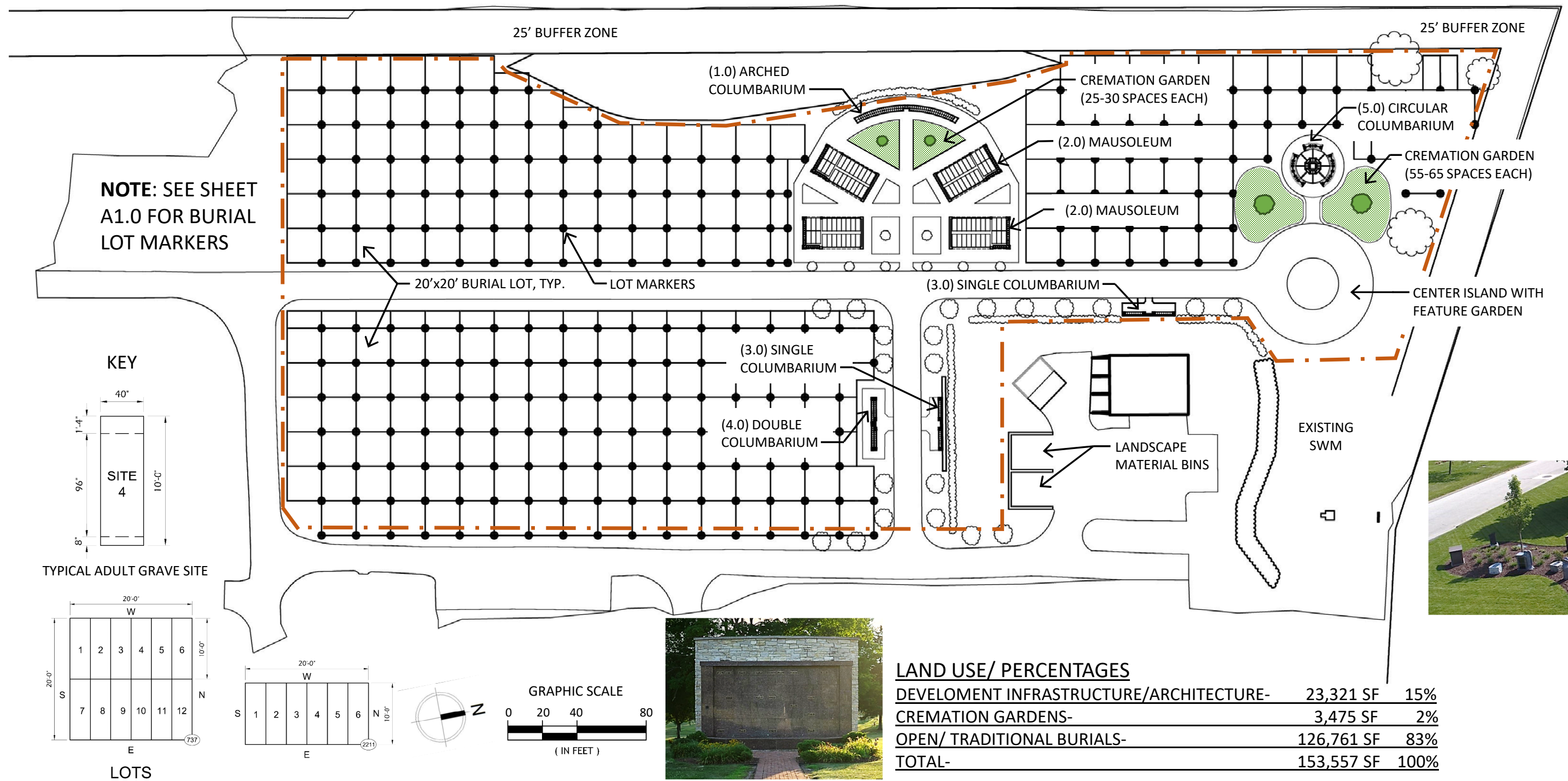
**RESOLUTION**

**JANUARY 23, 2024**

**Resolution- to approve a revision to the approved master plan, for the Chestnut Grove Cemetery, an element within the Comprehensive Plan of the Town of Herndon**

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

1. The Chestnut Grove Cemetery Master Plan revision, dated November 14, 2023 and prepared by consultants The Tribute Company, is approved.



# Chestnut Grove Cemetery Final Master Plan- November 14<sup>th</sup>, 2023

P.1

**Agenda Item:** Resolution 24-G-10 to repeal Resolution 23-G-52 and to endorse and authorize a substitute funding amount on VDOT FY2027 and FY2028 Revenue Sharing Program funding application towards the VDOT-administered 'East Elden Street Widening and Improvements (UPC 50100)'

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Jaleh Moslehi, Capital Projects Planner/Engineer

**Description:**

On October 2, 2023, Town staff had submitted to VDOT a Revenue Sharing funding application to include the Town's resolution with a total request of up to \$10,000,000 for the *East Elden Street Widening and Improvements* (UPC 50100) project to address a funding need for this capital improvement project. However, last month, VDOT staff informed the Town that it could increase its total funding request to \$10,812,110, of which 50%, or \$5,406,055, is to serve as the Town's local match to be directed to the project.

Accordingly, Town staff desires to continue processing this year's Revenue Sharing application of up to \$10,812,110, with a 50% local Town match, per VDOT's advice. The attached revised resolution shows the Town's updated funding request.

**Background:**

The scope for this VDOT-administered project is to provide congestion relief by widening East Elden Street to six (6) lanes with a raised median between Fairfax County Parkway and Herndon Parkway, continuing as a four (4) lane section with a raised median and dedicated turning lanes between Herndon Parkway and Van Buren Street, transitioning to a two (2) lane section with a left-turn lane when reaching Monroe Street. The project also includes bridge upgrade/flood mitigation measures, improved traffic signalization, bus transit enhancements, ADA pedestrian sidewalks, bike lanes, and cycle tracks on both sides of the roadway with connectivity to three (3) regional trails and the Herndon Metrorail Station.

**Budget Impact:**

Jurisdictions must commit at least 50% in local matching funds within the two fiscal years after the revenue-sharing allocation. The Town's 50% Local Match would be comprised of Town general funds, Town bond funds, and/or NVTALocal Revenue of up to \$5,406,055 (i.e., \$2,703,027.50 for FY2027 and \$2,703,027.50 for FY2028). If



awarded, the Town's application would be for two fiscal years (FY2027 and FY2028), with funding available on 7/1/2026 and 7/1/2027, respectively.

If the Town successfully obtains these VDOT Revenue Sharing funds, the funds will reduce the amount of funding for which the Town would otherwise be responsible.

**Recommendation:**

Staff recommends that the Mayor and Town Council adopt the attached resolution to repeal Resolution 23-G-52 and to endorse and authorize a substitute funding amount on VDOT FY2027 and FY2028 Revenue Sharing Program funding application towards the VDOT-administered 'East Elden Street Widening and Improvements (UPC 50100)'

**Attachments:**

1. Resolution (Proposed)

**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution-     to repeal Resolution 23-G-52 and to endorse and authorize a substitute funding amount on VDOT FY2027 and FY2028 Revenue Sharing Program funding application towards the VDOT-administered 'East Elden Street Widening and Improvements (UPC 50100)'**

The Town desires to revise the requested funding on the submitted Revenue Sharing application from \$10,000,000 to \$10,812,110, of which 50% or \$5,406,055 is to serve as the Town's local match to be directed to fund the East Elden Street Widening and Improvements (UPC 50100) project.

The Town's match will be comprised of town general funds, town bond funds, and/or Northern Virginia Transportation Authority (NVTa) Local Revenue funds within the two fiscal years subsequent to allocation along with a Town/VDOT project agreement prior to beginning a VDOT administered project.

**THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Herndon, Virginia that:

1. The Town Council supports increasing the previously requested and endorsed funding from \$10,000,000 to \$10,812,110 through the Virginia Department of Transportation Revenue Sharing Program.
2. This resolution repeals Resolution 23-G-52 adopted at the Town Council meeting of the Town of Herndon on July 18, 2023.
3. The Town Manager is authorized to execute project administration agreements and/or addendums for any approved Revenue Sharing projects with the Virginia Department of Transportation.

**Agenda Item:** Ordinance 24-O-02 to amend the Herndon Town Code, Chapter 2 (ADMINISTRATION), Article I (In General), Section 2.1 to clarify the rescheduling of meetings

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Lesa Yeatts, Town Attorney

**Description:**

This is a new agenda item to address a necessary housekeeping amendment to Section 2-1 to clarify the rescheduling of meetings of the Town Council due to unforeseen circumstances, like weather. The clarity of the language is particularly important. The language of this amendment was recently included in a more comprehensive amendment of Chapter 2 (24-O-01), that was tabled to allow further review of the attendance language in Section 2-5.

**Background:**

N/A

**Budget Impact:**

None

**Recommendation:**

Recommend adoption of the proposed Ordinance.

**Attachments:**

1. Ordinance (Proposed)



**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**ORDINANCE**

**JANUARY 23, 2024**

**Ordinance-**      **to amend the Herndon Town Code, Chapter 2 (ADMINISTRATION), Article I (In General), Section 2.1 to clarify the rescheduling of meetings**

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

1.     The following sections or provisions of the Herndon Town Code (2000), as amended, are repealed, replaced and re-ordained as follows:

**CHAPTER 2 (ADMINISTRATION)**

**Article I. In General**

**Sec. 2-1 – Meeting schedule.**

\*\*\*

(c) Should the conduct of a regular meeting be unnecessary due to a lack of items for consideration, or impossible due to the inability to obtain a quorum, or due to weather or other condition such that it is hazardous for members to attend the regular meeting, as declared in writing by the mayor, the regular meeting may be postponed or canceled and notice of such postponement or cancelation **and the rescheduled date**, shall be published by the town clerk. All hearings and other matters previously advertised shall be conducted at the ~~continued~~ **rescheduled** meeting and no further advertisement is required, **unless required by law**.

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

**24-O-02**

**Agenda Item:** Ordinance 24-O-03 to approve and authorize the mayor to sign a lease agreement between the Town and Board of Supervisors of Fairfax County, Virginia, for office space at 397 Herndon Parkway

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Lesa Yeatts, Town Attorney, Scott E Robinson, Public Works Director

**Description:**

The Board of Supervisors currently occupies the office space at 397 Herndon Parkway which is used solely for constituent services. That lease expired on December 31, 2023.

The proposed Ordinance approves a new lease term for 185.4 sq. ft of office space in the Town's building located at 397 Herndon Parkway. The new lease will be effective on January 1, 2024, and expire at the end of the current term of office on December 31, 2025.

**Background:**

N/A

**Budget Impact:**

The rent for this space is proposed to remain \$1.00, consistent with other leases for governmental entities at this location.

**Recommendation:**

Recommend approval of the Ordinance as proposed.

**Attachments:**

1. Ordinance (Proposed)
2. Lease
3. Exhibit A

**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**ORDINANCE**

**JANUARY 23, 2024**

**Ordinance-**      **to approve and authorize the mayor to sign a lease agreement between the Town and Board of Supervisors of Fairfax County, Virginia, for office space at 397 Herndon Parkway**

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

1. The lease agreement dated January 23, 2024, between the Town and the Board of Supervisors of Fairfax County, Virginia, for office space in the town's building located at 397 Herndon Parkway is approved. The lease agreement shall be effective from January 1, 2024, and will expire on December 31, 2025. The rent shall be \$1.00 for the term.
2. The mayor is authorized to sign and deliver the lease agreement and any related documents necessary to evidence or effectuate the lease agreement.
3. This ordinance shall be effective on and after the date of its adoption.



## **LEASE AGREEMENT**

THIS LEASE made on this 23<sup>rd</sup> day of January 2024, by and between the TOWN OF HERNDON, a municipal corporation (Landlord) and the BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA, a body politic and corporate of the Commonwealth of Virginia ("Tenant").

### **Recitals**

Landlord is the owner of a building and premises located at 397 Herndon Parkway, Herndon, Virginia (the building).

Landlord and Tenant have agreed that Tenant will lease from Landlord, in consideration of the rent and other benefits, and under the terms and conditions specified here, a portion of the premises commonly known as part of the building at 397 Herndon Parkway, (as shown on Exhibit A, attached and incorporated by reference).

**THEREFORE**, the parties agree as follows:

1. Commencement and Ending Date of Term. Beginning January 1, 2024, Landlord leases the leased premises to Tenant according to the terms of this lease. The Tenant may possess the leased premises with the Tenant having the right to terminate the Lease upon 30 days prior written notice to the Landlord, and the Landlord having the right to terminate the Lease upon 90 days prior written notice to the Tenant. The term of this lease shall expire December 31, 2025.
2. Rent. Tenant shall pay Landlord on demand \$1.00 rent for the entire term.
3. Use of Premises. Tenant shall use the leased premises solely for office use. Tenant shall have access to and from the leased premises and to the restrooms. Landlord retains for itself and its employees, agents, and invitees, a right of access through the leased premises to and from spaces.

Tenant certifies to Landlord that uses of this space are consistent with the Town of Herndon Zoning Ordinance and architectural guidelines or ordinances of the Herndon Town Code.

4. Policy Compliance. Tenant shall comply with all policies regarding the use of Town buildings, including the prohibition of alcohol and the use of recreational drugs or tobacco, as well as the Town building key policy.

5. Utility Charges. Landlord shall maintain and pay the cost of all utilities (except telecommunications) on the leased premises.

6. Liability Insurance. Tenant shall supply the Town with a certificate of self-insurance.

7. Default. Tenant shall be in default upon failure to perform any term of this lease for more than five days after written notice of such failure shall have been given to Tenant or after Tenant's abandonment of the leased premises.

8. Rights and Remedies on Default. Landlord shall have the following rights on default of Tenant, which shall be cumulative, none excluding any other right allowed by this lease or by law.

a. Landlord may enter the leased premises and repossess the leased premises and remove Tenant and any others who may be occupying the leased premises and remove any property.

b. Landlord may seize, remove and sell all of the personal property and fixtures of Tenant on the leased premises or remove and store such property at the cost of and for the account of Tenant.

9. Custodial. Landlord shall provide custodial services, consisting of emptying trash and vacuuming, once a week for the leased premises.

10. Waste or Nuisance. Tenant shall not commit any waste or nuisance upon the leased premises.

11. Maintenance by Tenant. Tenant accepts the leased premises including the improvements and any furnishings and equipment in the leased premises in their existing condition. Tenant shall at all times keep the leased premises in good order, condition, and repair. Tenant shall maintain the leased premises in a clean and sanitary condition. If Landlord is required to make any repairs by reason of Tenant's negligent or intentional act or omission, Tenant shall pay to Landlord the cost of the repairs as additional rent within ten days after written notice. Landlord shall be responsible for roof, structural integrity of the building, and replacement and repair of utility systems related to the leased premises. Except as provided in paragraph 15, Tenant shall return the leased premises to its original condition prior to Tenant's vacation of the premises, normal wear and tear excepted.

12. Notification of Hazard. Tenant and Landlord shall give immediate notice to the other in case of fire, accident, or defect in the leased premises or in any fixtures or personal property comprising the leased premises.

13. Alterations and Improvements. Except as provided in this paragraph, Tenant shall not make or cause to be made any alterations to the leased premises without first obtaining Landlord's written consent.

14. Removal of Improvements and Restoration by Tenant. All alterations except lighting not necessary for normal use of the building or conformance with the Virginia Uniform Statewide Building Code made by Tenant shall remain the property of Landlord at the expiration or termination of the lease. This property will remain part of the leased premises and Tenant shall not have any obligation to remove it.

15. Loss and Damage. Landlord shall not be liable for any loss or damage to property of Tenant located on the leased premises. Landlord shall not be liable for any injury, death, or damage to persons or property associated with Tenant resulting from fire, explosion, falling plaster, steam,



gas, electricity, water, rain, snow, or leaks from any part of the leased premises. Landlord shall not be liable for any latent defect in the leased premises or in the building of which they form a part. All property of Tenant or its subtenants kept or stored on the leased premises shall be so kept or stored at the risk of Tenant or subtenants.

16. Right of Entry. In addition to Landlord's right of access as described in paragraph 3, Landlord, its contractors, agents, or prospective purchasers or lessees, shall have the right to enter the leased premises during normal business hours to examine the same upon reasonable notice, either oral or written.

17. Quiet Enjoyment. Upon the observance of all Tenant's obligations of this lease, Tenant shall peaceably and quietly hold and enjoy the leased premises.

18. Surrender of Premises. At the expiration or termination of the term of this lease, Tenant shall surrender the leased premises in the same condition that the leased premises were in at the commencement of this lease, except as provided in paragraph 15, reasonable wear and tear excepted, and shall surrender all keys for the leased premises to Landlord.

19. Assignment and Subletting. Tenant may not assign this lease without prior written consent of Landlord. This prohibition against assigning or subletting shall be construed to include a prohibition against any assignment or subletting by operation of law.

20. Binding on Successors/Assigns. All of the terms of this lease shall bind the successors and assigns of Landlord and Tenant, except where the assignment is ineffective due to lack of Landlord's consent.

BOARD OF SUPERVISORS OF FAIRFAX  
COUNTY, VIRGINIA

DocuSigned by:  
By: Elicia L. Seard-McCormick  
Elicia L. Seard-McCormick  
Deputy County Executive of Administration

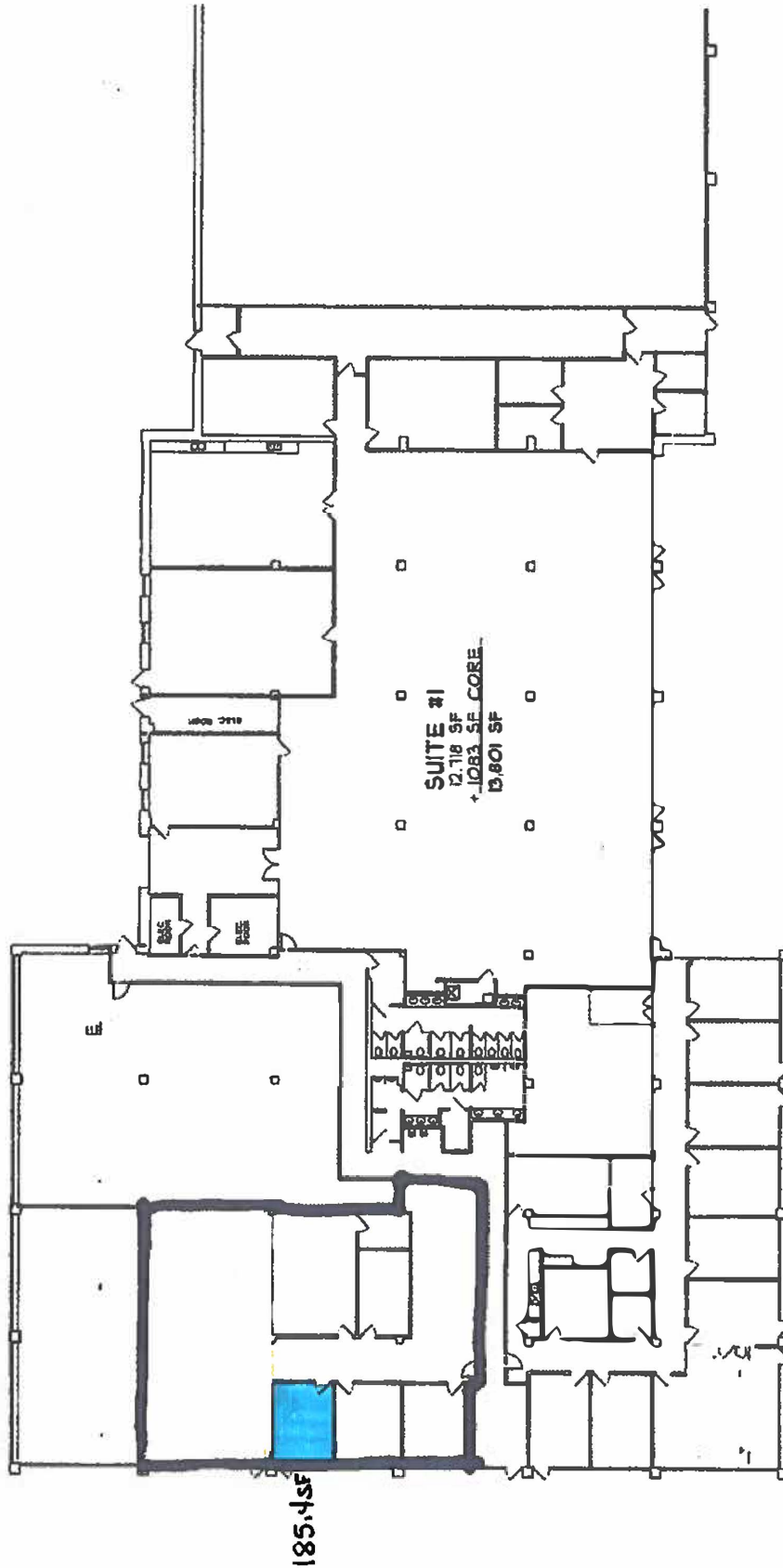
TOWN OF HERNDON, VIRGINIA

By: \_\_\_\_\_  
Sheila A. Olem  
Mayor

APPROVED AS TO FORM:

By: Lesa J. Yeatts  
Lesa J. Yeatts  
Town Attorney

# EXHIBIT A





**Agenda Item:** Resolution 24-G-11 to appoint a member to the Herndon Youth Advisory Committee

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Kirstyn Jovanovich, Town Clerk

**Description:**

This is a request to appoint Vice Mayor Clark Hedrick as a member of the newly established Herndon Youth Advisory Committee (HYAC) and to serve as a liaison to work with the HYAC.

**Background:**

N/A

**Budget Impact:**

None

**Recommendation:**

Recommend approval of the resolution, as presented.

**Attachments:**

1. Resolution (Proposed)

**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution-** to appoint a member to the Herndon Youth Advisory Committee

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

1. Vice Mayor Clark Hedrick is appointed as a member of the Herndon Youth Advisory Committee to serve as a liaison to the Committee through December 31, 2024.

**Agenda Item:** Resolution 24-G-12 to appoint the Town of Herndon's elected official representative to the Northern Virginia Transportation Authority's Planning Coordination Advisory Committee (NVTAPCAC)

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Kirstyn Jovanovich, Town Clerk

**Description:**

This is a request to appoint Vice Mayor Clark Hedrick as the Town of Herndon's elected official representative on the Northern Virginia Transportation Authority's Planning Coordination Advisory Committee (NVTAPCAC) through December 31, 2024.

**Background:**

On January 10, 2023, by Resolution 23-G-12, the Town Council appointed Mayor Sheila Olem to serve as the Town's representative on the NVTAPCAC. On January 11, 2024, the NVTAPCAC appointed Mayor Olem to serve as the Town Member on the NVTAPCAC. Members of NVTAPCAC are not able to serve on the PCAC. As a result, the Town Council must appoint a new elected official representative to the PCAC to serve through the remainder of the term ending December 31, 2024.

**Budget Impact:**

None

**Recommendation:**

Recommend approval of the resolution as presented.

**Attachments:**

1. Resolution (Proposed)

**TOWN OF HERNDON, VIRGINIA  
TOWN COUNCIL**

**RESOLUTION**

**JANUARY 23, 2024**

**Resolution-      to appoint the Town of Herndon's elected official representative to the Northern Virginia Transportation Authority's Planning Coordination Advisory Committee (NVTAPCAC)**

The General Assembly legislation creating the Northern Virginia Transportation Authority (NVTAP) calls for the establishment of the Planning Coordination Advisory Committee (PCAC) and legislation mandates that the PCAC 'shall include, but not be limited to, at least one elected official from each town that is located in any county embraced by the Authority and receives street maintenance payments under § 33.1-41.1.

Membership of the PCAC is comprised of elected officials who are not members of the NVTAP, including one member from the towns of Dumfries, Herndon, Leesburg, Purcellville, Vienna and any town that receives the specified street payment in the future; one member each from the Cities of Fairfax, Falls Church, Manassas and Manassas Park; two members each from the City of Alexandria and Arlington County; three members each from the Counties of Loudoun and Prince William; and four members from Fairfax County.

PCAC members are appointed annually by their local governing bodies and on January 10, 2023, by Resolution 23-G-12, the Town Council appointed Mayor Sheila Olem to serve as the Town's elected official on the NVTAP PCAC for the 2023-2024 term. On January 11, 2024, the NVTAP appointed Mayor Olem to serve as the Town Member on the NVTAP for the calendar year 2024, thus no longer being able to serve as the Town's appointment on the PCAC. The Town Council is appointing an elected official to serve the remainder of the vacated term on the PCAC.

**THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Herndon, Virginia that:

1. Vice Mayor Clark Hedrick is appointed as the Town's elected official representative to the Northern Virginia Transportation Authority's Planning Coordination Advisory Committee (NVTAPCAC) through December 31, 2024.



**Agenda Item:** December 5, 2023 Town Council Work Session Minutes

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Kirstyn Jovanovich, Town Clerk

**Description:**

This is a request to approve the December 5, 2023 Town Council Work Session Minutes.

**Background:**

N/A

**Budget Impact:**

None

**Recommendation:**

Recommend approval, as presented.

**Attachments:**

1. December 5, 2023, Draft Work Session Minutes

**HERNDON TOWN COUNCIL**  
**Work Session Meeting Minutes**  
**Tuesday, December 5, 2023**

The Town Council held a work session meeting on Tuesday, December 5, 2023, at 7:00 p.m. in the Herndon Council Chambers Building, 765 Lynn Street, Herndon, Virginia. In attendance were: Mayor Sheila Olem, Vice Mayor Clark Hedrick, and Councilmembers Naila Alam, Cesar del Aguila, Pradip Dhakal, Keven LeBlanc, and Donielle M. Scherff.

Staff present during the meeting: William H. Ashton II, Town Manager; Lesa Yeatts, Town Attorney; Kirstyn Barr Jovanovich, Town Clerk; Chief Maggie DeBoard, Herndon Police; Lisa Gilleran, Director of Community Development; Marjorie Sloan, Director of Finance; Anne Papa, Chief Communications Officer; Cindy Roeder, Director of Parks and Recreation; Scott Robinson, Director of Public Works; Lauri Sigler, Deputy Town Attorney; Bryce Perry, Deputy Director of Community Development; Cynthia Hoftiezer, Deputy Director of Parks and Recreation; Dave Stromberg, Zoning Administrator; Judy Fry, Executive Assistant to the Town Manager; Ahmad Zaki, Lead Planner; Jaleh Moslehi, Capital Projects Planner/Engineer; Dave Bracamonte, Systems Manager; and Margie Tacci, Deputy Town Clerk.

**1. CALL TO ORDER**

Mayor Olem called the December 5, 2023, Town Council work session to order at 7:00 p.m.

**Determination of a Quorum**

Mayor Olem determined there was a quorum of all Councilmembers present. Mayor Olem reminded the Council of the meeting decorum.

**Amend the Agenda**

Mayor Olem stated that the Council had a need to go into a Closed Meeting that evening and asked for a motion to Amend the Agenda.

Councilmember LeBlanc moved to Amend the Agenda to add a Closed Meeting pursuant to Code of Virginia Section 2.2-3711(A)(8), for consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel, relating to building code enforcement issues, and that the agenda be so amended. Motion seconded by Vice Mayor Hedrick.

The question was called on the motion, which carried by unanimous roll call vote. The vote was: Councilmembers Alam, del Aguila, Dhakal, LeBlanc, Scherff, and Vice Mayor Hedrick and Mayor Olem voting “Aye.”

## **2. PRESENTATIONS**

### **a. Presentation of the Town’s Annual Comprehensive Financial Report (ACFR) for the Fiscal Year Ended June 30, 2023 (*To be presented at the December 12, 2023 Town Council Meeting*)**

Mayor Olem stated that at next week’s regular meeting, Matt Heatwole of Brown Edwards and Company, LLP, representing the Town’s external auditors, is presenting the Town’s Annual Comprehensive Financial Report for Fiscal Year 2023. She encouraged her colleagues to review the documents that were sent to them on this subject and stated that Mr. Heatwole will be addressing any concerns or questions from Council following his presentation next week.

## **3. GENERAL**

### **a. Ordinance to approve and authorize the Mayor to sign a 3-year cable television franchise extension between the Town and CoxCom, LLC**

Lesa Yeatts, Town Attorney, presented the staff report and stated that CoxCom provides cable services in the Town and the current franchise agreement expires on January 1, 2024. The Town, Fairfax County, the Town of Vienna, and Cox have been working on this agreement for several months. Ms. Yeatts reviewed the provisions of the agreement granting the three-year franchise extension to Cox. Staff recommends approval of the proposed ordinance, as presented.

There was brief discussion among Council and staff on this item, including: (1) possibility of CoxCom being able to provide additional digital channels, and (2) other cable franchise agreements in the Town.

Following brief discussion and with the concurrence of Council, staff was directed to place this item as presented on the Consent Agenda for the next meeting’s agenda.

### **b. Resolution to approve an amendment to the Funding Agreement for Consulting Services, between the Town of Herndon and certain owners of property located in the Transit-Related Growth Area to provide funding for planning consultant services related to the preparation of a Transit-Related Growth Small Area Plan**

Lauri Sigler, Deputy Town Attorney, presented the staff report and stated that the proposed resolution amends the funding agreement that a previous Town Council approved on October 16, 2021. The agreement provides for the property owners in the

Transit-Related Growth (TRG) Area to pay the Town up to \$500,000 for planning consultant services related to the preparation of a TRG Small Area Plan. The consulting contract is with the firm Skidmore, Owings, and Merrill, LLP.

Ms. Sigler reviewed the proposed amendments, which will: (1) formally remove one of the original property owners that no longer wants to participate, and (2) extend the target date for the last phase of the TRG Small Area Plan to allow additional time for the consultants to complete the plan and present it to the Planning Commission.

Staff recommends approval of the proposed resolution as presented, amending the Funding Agreement for Consulting Services between the Town and certain owners of property located in the TRG Area.

There was brief discussion among Council and staff about the proposed agreement, including: (1) why the property owner is withdrawing from the agreement, and (2) impact of the proposed changes on the agreement.

Following brief discussion and with the concurrence of Council, staff was directed to place this item as presented on the Consent Agenda for the next meeting's agenda.

**c. Resolution to initiate consideration of a Comprehensive Plan Amendment, CPA #23-01, to amend Chapter 3, Land Use Plan, of the 2030 Comprehensive Plan adopted August 12, 2008, as amended through May 24, 2022, to adopt the Transit-Related Growth (TRG) Small Area Plan and incorporate it by reference into the Town's 2030 Comprehensive Plan**

Ahmad Zaki, Lead Planner, presented the staff report and stated that the proposed resolution initiates consideration of Comprehensive Plan Amendment CPA #23-01, which allows for the adoption of the Transit-Related Growth (TRG) Area Plan into the 2030 Comprehensive Plan. If approved, the resolution directs the Planning Commission to prepare the amendment and hold a public hearing on the matter. Following the Planning Commission's action at a public hearing, the Town Council will consider the amendment and the Commission's recommendation. Staff recommends approval of the proposed resolution as presented.

There was no discussion and with the concurrence of Council, staff was directed to place this item as presented on the Consent Agenda for the next meeting's agenda.



**d. Resolution to endorse and authorize two funding applications to the Regional Jurisdiction and Agency Coordinating Committee (RJACC) of the Northern Virginia Transportation Authority (NVTA) for Fiscal Year (FY) 2030 Regional Surface Transportation Program (RSTP) and Congestion Mitigation Air Quality (CMAQ) funding**

Jaleh Moslehi, Capital Project Planner/Engineer, presented the staff report and reviewed the two proposed funding applications to the Northern Virginia Transportation Authority (NVTA), which are: (1) FY 2030 RSTP request for \$1.5 million for the Sterling Road Multi-Modal Improvements Project, and (2) FY 2030 CMAQ request for \$500,000 for the Town-wide American Disabilities Act (ADA) Sidewalk and Trails Improvement Project. Ms. Moslehi briefly reviewed the projects and stated that there are no matching requirements for the grants. Staff recommends approval of the proposed resolution as presented.

There was brief discussion among Council and staff on the applications and projects that the grants will fund if awarded.

Responding to Mayor Olem, Ms. Moslehi stated that she is aware that Loudoun County is studying the area near Rock Hill Road, but she is not aware of any projects planned for the area at that time.

Following brief discussion and with the concurrence of Council, staff was directed to place this item as presented on the Consent Agenda for the next meeting's agenda.

**e. Resolution to award contract IFB# 24-03, Snow Removal and Ice Control Services**

Scott Robinson, Director of Public Works, presented the staff report and stated that the proposed resolution will award a contract to assist the Town in snow and ice removal during the snow removal season, which is November 1 through April 30. He stated that this was a re-solicitation for bids as the first request did not receive any responses. Following the Town's procurement process, one bid was received from AllGreen Solutions, Inc., trading as AllGreen Landscape Company, Inc., which was found to be responsive and responsible. Staff recommends approval of the proposed resolution as presented.

There was brief discussion among Council and staff on the proposed resolution, which included: (1) items included in the contract, (2) snow removal procedures, and (3) snow removal costs.

Following brief discussion and with the concurrence of Council, staff was directed to place this item as presented on the Consent Agenda for the next meeting's agenda.

#### **4. CONSENT**

- a. Ordinance to approve and authorize the Mayor to sign a lease agreement between the Town and the Honorable Irene Shin, Member of the House of Delegates, for office space at 397 Herndon Parkway**
- b. Ordinance to approve and authorize the Mayor to sign a lease agreement between the Town and the Honorable Jennifer Boysko, Virginia State Senator, for office space at 397 Herndon Parkway**
- c. Ordinance to approve and authorize the Mayor to sign a third lease amendment between the Town and TWC Association Management, Inc. to amend the rent for two renewal extension options for office space and parking spaces located at 397 Herndon Parkway**

There was no discussion by Council on the Consent Agenda items.

#### **5. DISCUSSION**

##### **a. Town of Herndon 2024-2029 Draft Strategic Plan**

Mayor Olem recognized Kirstyn Barr Jovanovich, Town Clerk, to begin the discussion on the Town's Draft Strategic Plan.

Ms. Jovanovich stated that during the Town Council's Retreat in March 2023, the Town Council launched the strategic planning process by drafting a Vision Statement, Core Values, Community Tag Line, and identifying five Strategic Focus Areas. Since then, the Council and staff have been working to refine and advance the Draft Strategic Plan.

Ms. Jovanovich reviewed the proposed Strategic Plan along with its purpose and discussed the five Strategic Focus Areas, Core Values, and next steps. Each of the Focus Areas include guiding principles, goals, and objectives. She stated that the intent is for the Strategic Plan to provide a clear vision to the staff on Council's priorities and to serve as a communication tool to staff and the community on the Council's goals and priorities. She stated that the plan in its current form has not been completed past the Objectives portion and following discussion that evening, staff will start working on the Action Plan.

There was discussion among Council and staff on the Draft Strategic Plan, including: (1) the components of the Strategic Plan and the planning process, (2) Town Council Vision, (3) Strategic Focus Areas, (4) Action Plan items and process, (5) key performance indicators and measurements, (6) intent of the Strategic Plan, and (7) Core Values.

Following discussion among Council and staff, the Town Council provided the following changes to the Draft Strategic Plan:

**Town Council Vision:**

- Revise the Vision Statement to substitute the word “Town” for the first use of the word “community.”
- Add a preamble to the Strategic Plan that identifies the intent and references the aspirational nature of the Plan.
- Add the Core Values to the Guiding Principles pages.

**Area 1: Fiscal Stewardship**

- Add an objective for grant tracking and management or include a reference to where it is mentioned elsewhere in the Plan.

**Area 2: Secure and Interconnected Community**

- Revise the guiding principle and move the first sentence to the end of the paragraph.
- Add “and belonging” to objective 1.3.
- Add “build partnerships” following “agreements” and add “and address regional concerns” before “as needed” to objective 3.3.

**Area 3: Environmental and Economic Sustainability**

- Remove language of “flavor and pulse” and reword goal EES 3.
- Broaden objective EES 1.1 to overall sustainable development.
- Broaden objective EES 6.3 to include greenspace rather than only referencing tree cover.
- Remove “leverage technology to” from objective EES 4.2.

**Area 4: Good Governance**

- Edit objective GG 1.1 to read “establish, implement, and manage,” or add a new goal that expresses the same sentiment.
- Edit goal GG 2 to read “actively engage community input...”
- Remove “of engagement” and change the beginning of objective GG 2.1 to “collaboratively identify and engage,” removing the words “evaluate and determine.”
- Consider adding objective GG 2.2 to highlight community engagement.
- Add “develop” to objective GG 3.1.
- Add “Town” to objective GG 3.3.

**Area 5: Thriving Community**

- Revise objective TC 2.2 to read: “employ communication strategies and tactics that engage intended audiences.”

Following discussion and with the concurrence of Council, staff was asked to make the edits as requested that evening and bring the Draft Strategic Plan back to Council for review once the Action Plan is drafted and the Draft Strategic Plan is further refined.

## **b. Community Cultural Festivals Donation Program Process**

Mayor Olem recognized Kirstyn Barr Jovanovich, Town Clerk, to begin the discussion of the Community Cultural Festivals Donation Program Process.

Ms. Jovanovich stated that at the October 17, 2023 work session, Council requested that staff provide an update on the administrative process that will be used to implement the Community Cultural Festivals Donation Program at a future meeting. She reviewed the donation program, which the Council approved at the October 24, 2023 meeting, along with the established application process that is used to hold events at Town facilities. She stated that while not all events will be eligible for a donation, all groups must follow the established application process to hold events in Town.

Ms. Jovanovich discussed: (1) donation eligibility requirements, (2) application components and the application review process, (3) event promotion and use of the Town logo, and (4) next steps for the program.

Ms. Jovanovich outlined the proposed application process, which involves: (1) applicant submitting the Community Cultural Festival Donation request at least 90 days before the event, (2) applicant completing the appropriate event application through the Town's website, (3) staff reviewing the application, and (4) staff submitting the donation request to the Town Council for approval.

There was discussion among Council and staff about the Community Cultural Festivals Donation Program Process, including: (1) donation eligibility criteria, (2) definition of cultural event, (3) donation amount and number of events that can be held per organization, (4) requiring matching funds from the organization for the donation, (5) how the donation program fits into the Town's annual budget, (6) considering liability concerns for the Town, (7) staff's role in the application process and event promotion, (8) making the approval process for donation funding administrative, rather than requiring Town Council approval, and (9) how cultural events could be economic drivers.

Responding to Councilmember Scherff, Anne Papa, Chief Communications Officer, shared that the other jurisdictions she spoke with primarily promote the jurisdiction's events on social media. She stated that staff plans to use social media to promote events that receive donations through the program.

Responding to Councilmember Alam, Ms. Papa and Cindy Roeder, Director of Parks and Recreation, stated that printed materials can be placed in the informational kiosks at the Herndon Community Center or the Herndon Municipal Center if they are from an organization in the Town, or from an organization benefiting the Town. They advised that events receiving a Town donation will likely fit these criteria.



Responding to the discussion about making the donation application process administrative, Lesa Yeatts, Town Attorney, summarized potential liability concerns for the Town.

Following discussion and with the concurrence of Council, staff was asked to make the following changes to the program:

1. Create an administrative review process for funding requests and remove the Town Council approval requirement;
2. Require a detailed event budget and a description that describes why the event is a cultural festival with the application;
3. Funding requests will not exceed 50 percent of the total event budget or capped at \$10,000, whichever is less; and
4. Limit organizations to only be eligible to receive one donation for a new Community Cultural Festival per fiscal year.

Following the discussion, Ms. Jovanovich stated that staff will make the requested changes and come back to Council with a revised donation program resolution.

### **Recess**

At 9:49 p.m. Mayor Olem called a brief recess, and at 9:55 p.m., the work session meeting reconvened, with all members present and Mayor Olem presiding.

### **c. Ad Hoc Committee Standard Operating Procedures**

Mayor Olem recognized Kirstyn Barr Jovanovich to begin the discussion of ad hoc committee procedures. Ms. Jovanovich presented a PowerPoint dated December 5, 2023, and stated that the Council discussed the Town's ad hoc committee process at the November 8, 2023 work session. At that time, staff was directed to review and revise the ad hoc committee procedures with the goal of providing clear objectives for each committee, increasing transparency, and establishing a meeting schedule.

Ms. Jovanovich reviewed: (1) Town's standing boards and current ad hoc committees, (2) ad hoc committee establishment process, (3) meeting requirements for public bodies, and (4) Town Clerk's office Standard Operating Procedure (SOP) related to ad hoc committees.

Ms. Jovanovich stated that during the November work session, three key issues were identified that were addressed in the SOP: (1) how direction is being provided from the Town Council, (2) communication of ad hoc committee recommendations to the Town

Council, and (3) establishing consistent meeting schedules. Included in the SOP is a requirement for each committee to provide quarterly reports to the Town Council, along with proposed quarterly meeting schedules.

There was discussion among Council and staff about the ad hoc committee process, including: (1) communication between ad hoc committees and Council, (2) ad hoc committee objectives to be identified at the start of the Town Council's term, (3) ad hoc committee agenda items, and (4) recording the ad hoc committee meetings.

Responding to Councilmember del Aguila, Ms. Jovanovich stated that staff is looking at the cost of recording the ad hoc committee meetings and that it will be part of the conversation around the FY 2025 budget.

Vice Mayor Hedrick asked staff to provide the number of views that the board and commissions meetings receive on the Town's website.

Responding to the discussion about recording the ad hoc committee meetings, Ms. Jovanovich explained that the minutes are the record for a meeting of a public body per the State Code. She stated that the meetings recordings supplement the official record.

#### **d. Town of Herndon Youth Advisory Committee**

Mayor Olem recognized Kirstyn Barr Jovanovich, Town Clerk, to begin the discussion of the Herndon Youth Advisory Committee (HYAC). Ms. Jovanovich stated that at the September 5, 2023 work session, Council discussed forming the HYAC. She stated that night's discussion is to review the establishing guidelines and provide feedback to staff about forming the HYAC.

Vice Mayor Hedrick provided comments about the importance of a youth committee and how he thought this group will serve as a link between the youth of the community and the Council. He provided an overview of a document that he edited outlining the guidelines, purpose, and objectives of the HYAC, which is included in the meeting agenda.

There was discussion among Council and staff about the formation of the HYAC, including: (1) incorporating the Dranesville District Representative to the Fairfax County School Board, (2) changes to the guidelines document, including the purpose and objectives, (3) being mindful of transportation limitations, timing of meetings, and language needs, (4) including members from different backgrounds and abilities, (5) Council's responsiveness to the committee, (6) community outreach, especially to private school students and homeschooled individuals, (7) term lengths, and (8) setting the committee up to begin with the start of the 2024-2025 school year.

Following discussion and with the concurrence of Council, staff was asked to prepare the documents establishing the HYAC to begin with the start of the 2024-2025 school year. The Council requested the following changes to the guidelines:

1. Include Vice Mayor Hedrick's changes in the guidelines document;
2. Change the language around including a representative from Growing Kids Therapy Center to be inclusive of other alternative therapy learning institutes;
3. Ensure that all students who are eligible to attend Herndon Middle or Herndon High School are included; and
4. Review annual versus two-year terms, and/or staggered terms, and bring information back to the Town Council.

Ms. Jovanovich stated that she would make the changes provided by the Council and provide a resolution and guidelines for their consideration enacting the HYAC.

- e. **Town Council Attendance - The Council needs to adopt an amendment to our Code of Conduct that would bring us in parity with anticipated amendments to the Town's boards and commissions bylaws. In doing so, we would also need to adopt the convention of accountability that other local governments have embraced throughout the Commonwealth (Vice Mayor Hedrick)**

Mayor Olem recognized Vice Mayor Hedrick to begin the discussion.

Vice Mayor Hedrick stated this was a topic of discussion when he served on the Board of Zoning Appeals (BZA) and stated that he understood that the Town's standing boards and commissions are considering adding attendance requirements to their bylaws over the next several months. To remain consistent with the Town's boards and to be accountable to the Council's Code of Ethics, he thinks a similar attendance requirement is important to consider for the Council.

There was discussion among Council and staff about attendance, which included: (1) maintaining consistency among the Town's boards, (2) options for attendance requirements, (3) potential consequences for not meeting the attendance requirements, such as removal from Town Council appointed boards/committees or reduction in pay, and (4) enforcement of the attendance requirements.

Following discussion and with the concurrence of Council, staff was asked to draft an amendment to the Code of Ethics stating that Councilmembers should: (1) not have unexcused absences from four work sessions or regular meetings in a row, or (2) have unexcused absences for 25 percent of the Council's work session or regular meetings within a 12-month period.

## 6. ROUNDTABLE

Councilmember del Aguila: no comments.

Councilmember Scherff: no comments.

Councilmember LeBlanc: asked staff for an update on the inventory of historic homes survey that had been anticipated at the end of November.

Lisa Gilleran, Director of Community Development, stated that the survey will be provided to the Town Council once the Town Manager reviews it.

Responding to Councilmember del Aguila, Ms. Gilleran stated that the survey results are compiled in PDF format, but due to the volume and type of information provided, it was not available in spreadsheet format at that time. She briefly reviewed the survey components and stated that there will be a discussion item on this topic at a work session in January.

Responding to Councilmember LeBlanc, Ms. Gilleran agreed that there is a spreadsheet listing the addresses of contributing and non-contributing structures. She could not recall at that time, but she thought there is a document that has information about the status of the contributing structures in the Historic District.

Responding to Councilmember del Aguila, Ms. Gilleran briefly discussed contributing and non-contributing structures that were included in the survey of the Historic District.

Councilmember Alam: stated that she met an individual in the community who enjoys the Town of Herndon and who had applied for employment with the Town.

Councilmember Dhakal: no comments.

Vice Mayor Hedrick: provided comments on several recent events, including: (1) Stars and Stripes NOVA Committee food and clothing drive held December 2, 2023, and (2) Holiday Homes Tour of Herndon, which although he could not attend, he heard it was a wonderful event.

Vice Mayor Hedrick stated that he understood that it was Cindy Roeder, Director of Parks and Recreation's, last meeting, and he expressed appreciation for her service to the Town.

Mayor Olem: Echoed Vice Mayor Hedrick's comments about Ms. Roeder.

William H. Ashton II, Town Manager: no comments.



## **7. CLOSED MEETING**

Mayor Olem stated that there was need for Council to go into a closed meeting, which was held in the Hoover Conference Room in the Herndon Council Chambers Building, 765 Lynn Street, Herndon, Virginia. The closed meeting was added to the agenda earlier in the meeting that evening.

Councilmember LeBlanc moved that the Council convene in closed meeting to discuss the following: as permitted by Code of Virginia Section 2.2-3711(A)(8), for consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel, relating to building code enforcement issues. Councilmember Alam seconded the motion, which carried by unanimous roll call vote. The vote was: Councilmembers Alam, del Aguila, Dhakal, LeBlanc, Scherff, and Vice Mayor Hedrick, and Mayor Olem voting "Aye."

The Council went into closed meeting at 11:24 p.m.

At 11:24 p.m. Mayor Olem called a brief recess, and at 11:27 p.m., the closed meeting reconvened in the Hoover Conference Room, all members present, with Mayor Olem presiding.

Councilmember Scherff moved to come out of the closed meeting. Motion seconded by Councilmember Dhakal and carried by unanimous roll call vote. The vote was: Councilmembers Alam, del Aguila, Dhakal, LeBlanc, Scherff, and Vice Mayor Hedrick, and Mayor Olem voting "Aye."

The Council came out of closed meeting at 11:42 p.m.

Councilmember Dhakal moved to certify that, to the best of each member's knowledge, in the closed meeting just concluded, nothing was discussed except the matter or matters (1) specifically identified in the motion to convene in closed meeting and (2) lawfully permitted to be discussed in a closed meeting under the provisions of the Virginia Freedom of Information Act as cited in that motion. Motion seconded by Councilmember LeBlanc and carried by unanimous roll call vote. The vote was: Councilmembers Alam, del Aguila, Dhakal, LeBlanc, Scherff, and Vice Mayor Hedrick, and Mayor Olem voting "Aye."

Ayes: 7

Nays: 0

Absent: 0

**8. ADJOURNMENT**

There being no further business, Mayor Olem adjourned the December 5, 2023, Town Council work session at 11:43 p.m.

**Amanda E.M. Kertz**  
**Chief Deputy Town Clerk**

**Minutes approved by Town Council: \_\_\_\_\_**

DRAFT

**Agenda Item:** December 12, 2023 Town Council Regular Meeting Minutes

**Meeting Date:** January 23, 2024

**Category:** Consent

**Prepared by:** Kirstyn Jovanovich, Town Clerk

**Description:**

This is a request to approve the December 12, 2023 Town Council Work Session Minutes.

**Background:**

N/A

**Budget Impact:**

None

**Recommendation:**

Recommend approval, as presented.

**Attachments:**

1. December 12, 2023, Draft Meeting Minutes

**HERNDON TOWN COUNCIL**  
**Regular Meeting Minutes**  
**Tuesday, December 12, 2023**

The Town Council met in a regular meeting on Tuesday, December 12, 2023, at 7:00 p.m. in the Herndon Council Chambers Building, 765 Lynn Street, Herndon, Virginia. In attendance were: Mayor Sheila Olem, Vice Mayor Clark Hedrick, and Councilmembers Cesar del Aguila, Pradip Dhakal, Keven LeBlanc, and Donielle M. Scherff.

Councilmember Naila Alam was absent.

Staff present during the meeting: William H. Ashton II, Town Manager; Lesa Yeatts, Town Attorney; Kirstyn Barr Jovanovich, Town Clerk; Lisa Gilleran, Director of Community Development; Marjorie Sloan, Director of Finance; Scott Robinson, Director of Public Works; Anne Papa, Chief Communications Officer; Captain Steven Pihonak, Herndon Police Department; Reid Okoniewski, Marketing and Communications Specialist; and Dave Bracamonte, Systems Manager.

**1. CALL TO ORDER**

Mayor Olem called the December 12, 2023, Town Council meeting to order at 7:00 p.m.

**2. PLEDGE OF ALLEGIANCE**

Mayor Olem led the Pledge of Allegiance to the Flag of the United States of America.

**Determination of a Quorum**

Mayor Olem determined there was a quorum of six Councilmembers present. Councilmember Alam was absent. Mayor Olem reminded those participating in tonight's meeting to follow the Town's meeting guidelines that are displayed in the Council Chambers.

**Announcements**

Mayor Olem stated that this is the last meeting of 2023 and Town offices will close at 12 noon on Friday, December 22, 2023, and will be closed on Monday, December 25, 2023, and Monday, January 1, 2024. The next Town Council work session is on Tuesday, January 2, 2024.

Mayor Olem stated that there are several events coming up in Herndon for the winter holidays, which are listed on the Town's website under "Hometown Holidays." She stated that Christmas tree collection is from Wednesday January 3, to Friday, January



5, and from Wednesday January 10 to Friday, January 12, 2024, on the resident's regular trash day.

Mayor Olem congratulated the Herndon High School Band, the Pride of Herndon, who were invited back to participate in the prestigious Pearl Harbor Memorial Day Parade on December 7, 2023, which is Pearl Harbor Remembrance Day. They are representing not only Herndon, but the State of Virginia, at the event.

### **3. PRESENTATIONS/REPORTS/COMMENTS**

#### **a. Proclamation to recognize Wreaths Across America Day**

Mayor Olem read into the record the Proclamation to recognize "Wreaths Across America Day." She stated that individuals could provide comments on the proclamation during the "Comments from the Audience" portion of the agenda.

#### **b. Presentation of the Town's Annual Comprehensive Financial Report (ACFR) for the Fiscal Year Ended June 30, 2023 by Brown Edwards and Company, LLP, Certified Public Accountants**

Marjorie Sloan, Director of Finance, introduced Matt Heatwole with Brown Edwards and Company, LLP, to present the Fiscal year Ended June 30, 2023 Annual Comprehensive Financial Report.

Mr. Heatwole provided a brief overview of the FY 2023 audit and stated that the audit resulted in an unmodified audit opinion which indicates reasonable, but not absolute, assurance that the financial statements and disclosures are materially correct.

Following the presentation there was brief discussion among Council and Mr. Heatwole on the Annual Comprehensive Financial Report.

#### **c. Town Manager Report**

Responding to a question Councilmember del Aguila asked about the audit, William H. Ashton II, Town Manager, stated that while the audit looks back over the past year, staff asks the Town's financial advisors about future challenges and risks to the Town. He indicated that the Town's advisors at Davenport will be presenting an update to the Council in the spring.

#### **Wreaths on Elden Street**

Mr. Ashton provided background on the decision to not mount holiday lighted decorations on utility poles on Elden Street, stating that mounting the wreaths on utility poles is not, and has never been, safe for Town employees. Both the Federal Occupational Safety and Health Administration (OSHA) and Virginia Occupational

Safety and Health (VOSH) prohibit any workers from performing work on a pole within 10 feet of the lines without proper safety equipment and training. Further, he stated that VOSH requires Dominion Power to make the lines safe before anyone works on a utility pole.

Mr. Ashton stated that when this issue was discovered during a routine safety inspection in November, and although staff tried to find alternatives, they could not secure contractors with the necessary equipment and training to install the wreaths this holiday season. As a result, he made the operational decision not to place employees in a dangerous situation to put up the decorations. He stated, to correct the record, that the Town's Risk Manager was not responsible for this decision, and she did not have a role in this process. Because he thought it was a clear cut issue, Mr. Ashton did not see the need to contact the Risk Manager and stated that those who were blaming the Risk Manager were speculating on the situation.

Mr. Ashton stated that in light of not being able to mount the wreaths, staff focused on increasing holiday decorations downtown, especially at Town Hall Square. He stated that staff will look for options to decorate Elden Street during the 2024 holiday season.

### **Herndon Festival**

Mr. Ashton outlined the factors that were considered in the operational decision to end the Herndon Festival, which was announced that Monday. He stated that there were several factors that had continued from last year that were pushing the event beyond the Town's operational capabilities. He reviewed the factors that contributed to the decision, including: (1) need for volunteer groups to provide volunteers and support for the event, which has been declining the past few years, (2) contract security companies that are needed to conduct bag checks, which were unreliable last year, (3) law enforcement needs and security burden on the Herndon Police Department, (4) Festival expertise knowledge gap associated with Parks and Recreation and Public Works staffing turnover in the last two years, and (5) East Spring Street improvements construction greatly impacting the event site.

Mr. Ashton stated that past Friday, Fairfax County announced that Celebrate Fairfax is ending, citing operational challenges similar to what the Town is seeing with the Herndon Festival. He stated that while staff is sad to see this chapter closing, he also sees this as an opportunity to explore new events that highlight Herndon and celebrate the community. He thanked everyone who worked, volunteered, attended, or participated in the Herndon Festival over the years, and stated that he looks forward to growth opportunities in the future.

## **Water and Sewer**

Mr. Ashton stated that all Town water customers will receive a letter that week regarding lead and copper content in drinking water, which is required by the Environmental Protection Agency (EPA). The letter is provided in both English and Spanish. While the Town has been in safe compliance since the requirements were enacted in 1991, the EPA is adding stricter requirements in 2024. Also included in the letter will be information about water system activity that is scheduled for the next few months.

## **Historic District Presentation**

Mr. Ashton stated that he received the Historic District survey from staff, and he is reviewing and clarifying the results. He stated that the Council should receive it in the near future.

### **d. Councilmember Comments**

Councilmember Dhakal: regarding Resolution 23-G-76, Consent Agenda item 5(b), he asked if the Town pays the difference if the consultant fees exceed the amount listed in the agreement.

Mr. Ashton stated that the Town would be responsible for any excess costs, but he does not anticipate that occurring in this situation based on the current progress with the consultant. He indicated that the project is almost complete.

Councilmember Dhakal stated that from a practice perspective, he did not want the burden of paying overage costs to fall on the Town.

Mr. Ashton stated that this contract is unique in that a third party came to the Town and asked to pay for the study. In many other projects, the Town is responsible for cost overruns, and in those cases, staff looks for grants or other ways to help cover the cost if the situation arises.

Councilmember Dhakal thanked Mr. Ashton for providing the background and explanation on the decision to end the Herndon Festival. He stated that he wished the Council would have had the chance to talk about the decision and to explore other opportunities. He would like to use this as an opportunity to look at holding other smaller events that reflect Herndon's diverse community.

Councilmember Dhakal provided comments on the Proclamation to recognize Wreaths Across America Day, thanking the volunteers that participate in the event, along with the Herndon Woman's Club.

Councilmember del Aguila: echoed Councilmember Dhakal's comments on the Proclamation to recognize Wreaths Across America Day.

Councilmember del Aguila thanked Vice Mayor Hedrick for helping with a recent Stars and Stripes NOVA Committee food and clothing distribution event. He noted that the event provided 26,000 pounds of food to approximately 2,000 families who attended.

Councilmember del Aguila stated that he recently attended the U.S. Global Leadership Coalition, which he felt was a reminder of the privilege Americans have to live in a representative democracy. He thought it was important to remember this during the holiday season.

Councilmember del Aguila thanked Councilmembers Dhakal and Scherff for helping to provide the Herndon High School girls basketball team with new practice jerseys. He said that new shoes for the team may also be forthcoming.

Councilmember del Aguila stated that the body of the Town Council was not consulted on the content or messaging of the video that announced the end of the Herndon Festival. He said that releasing the video was a unilateral decision that the Council was not involved in. He stated that he looks forward to more events like mini-festivals and having an event on the second or third Saturday of every month to draw more people to Herndon. He believes that the Town cannot keep increasing its operating expenses while cutting revenues and that tough decisions have to be made.

Councilmember del Aguila wished everyone Happy Holidays and to remember the blessings that they have.

Councilmember Scherff: thanked Mr. Ashton for his leadership to make tough decisions to keep the Town safe and thriving. She thought that the video explaining the cancellation of the Herndon Festival should have a second part that discussed modernizing and changing the ownership structure of events, where the Town is a stakeholder rather than an owner of the event. She stated that this change opens the Town up to new partners and events that she hopes that the community will initiate and lead.

Councilmember Scherff stated that a Latino Festival is in the planning stages for next year, and she asked anyone who would like to be involved to reach out to the Council.

Councilmember Scherff echoed her colleagues' comments on the Proclamation to recognize Wreaths Across America Day and thanked the Herndon Woman's Club.

Councilmember Scherff stated that since the last Council meeting, Cornerstones opened their food hub which distributes supplies to food pantries around the region. She thanked Cornerstones for leading this effort in the community.

Councilmember Scherff expressed kudos to Councilmember LeBlanc for his work in initiating and developing the Herndon Wintermarkt.



Councilmember Scherff wished Happy Holidays to the Herndon community.

Councilmember LeBlanc: Stated that prior to that night's meeting, he attended a Committee for Dulles meeting, where they are planning a year of discussion topics about legislation, transportation, and economic development around Dulles Airport.

Councilmember LeBlanc stated that he attended the grand opening of the Free From Hunger Center with Mayor Olem, which is the food pantry hub that Councilmember Scherff mentioned. He thanked Cornerstones for everything that they do and talked about how much the community can do when everyone works together.

Councilmember LeBlanc discussed several events he attended recently, including: (1) gift distribution with the Rotary Club of Herndon-Reston, where the organization worked with private partners, (2) Holiday Homes Tour of Herndon, where he thanked the Cultivating Community Initiative, Arts Herndon, Herndon Woman's Club, and other groups, for helping to make it successful, and (3) Wintermarkt, which he said was attended by over 11,000 people and included 65 vendors who reported record sales. Councilmember LeBlanc thanked the many volunteers who helped make Wintermarkt a wonderful event.

Councilmember LeBlanc thanked the Town Manager for his leadership and the decision in the face of hard choices and public opinion to end the Herndon Festival. He also shared that the Cultivating Community Initiative is looking at ways to create more community events in Town.

[Note: Councilmember Scherff left the dais at 7:57 p.m. and returned at 7:59 p.m.]

Vice Mayor Hedrick: Responding to comments Councilmember Scherff made about a Latino Festival, Vice Mayor Hedrick stated that he would like to assist with the planning process for this event.

Vice Mayor Hedrick stated that while he understood the important considerations behind the decision to end the Herndon Festival, he thought it would have been beneficial to engage in a more public process on that decision. He noted that when the Town Manager emailed the Council about the decision a few weeks ago, he was surprised by the level of organizational strain the Herndon Festival had caused. He thought that the public may also have not been aware of how difficult the event had become to produce, and he would have liked to socialize this information more with the public. That being said, he told the Town Manager that he made a tough decision, and he would not second guess it.

Vice Mayor Hedrick thanked the Council for the robust discussion on attendance at the last work session. He thinks that an attendance policy is a good measure of accountability for the Council.

Vice Mayor Hedrick discussed several events he recently attended, including: (1) Northern Virginia Transportation Authority (NVTA) legislative forum, (2) Dulles Area Transportation Association (DATA) legislative roundtable, (3) Stars and Stripes NOVA Committee's food and clothing distribution event, which he stated was a success, (4) Lighting of the Town Tree and Sing-along, where he thanked staff for the bright lights on the tree, and (5) Wintermarkt, for which he offered kudos to Councilmember LeBlanc for his efforts, along with all of the volunteers that support the event.

Mayor Olem: stated that it was her honor to request and read the proclamation recognizing Wreaths Across America Day. She stated that the wreath laying ceremony starts at 12 noon at Chestnut Grove Cemetery on December 16, 2023. She encouraged those interested to reach out to her or contact the Herndon Woman's Club for more information.

Mayor Olem thanked Vice Mayor Hedrick for bringing forward the discussion on attendance at the last work session.

Mayor Olem discussed several events she recently attended, including: (1) Free from Hunger Center Ribbon Cutting with Cornerstones on November 20, (2) visited the organization "She Believes in Me" in the downtown, where they have a food pantry to distribute fresh food to the community, (3) Virginia Municipal League (VML) Regional Meeting in Leesburg on November 30, (4) Holiday Homes Tour, Model Train Show, and Lighting of the Town Tree and Sing-along on Saturday December 2, (5) lighting of the Menorah for the fourth night of Hanukkah on Sunday, December 10, at Town Hall Square, where they honored the late Arthur Nachman, and (6) robotics event on December 11, where Congressman Connolly and Google announced a grant program to fund more robotics clubs in Fairfax County, including at Herndon Middle School.

Mayor Olem stated, for the record, that the first place she volunteered in the Town was at the Herndon Festival, where she continued to volunteer over the years. She expressed her appreciation to the Town Manager for communicating the background and reasons for the decision on the Herndon Festival to the Town Council over the last month.

### **Comments and Disclosures for the Record**

Mayor Olem asked Kirstyn Barr Jovanovich, Town Clerk, if she received comments for the record.

Ms. Jovanovich stated that comments were provided to the Council and entered into the record on Consent Agenda item 5(b), Resolution 23-G-76 to approve an amendment to the Funding Agreement for Consulting Services, between the Town of Herndon and certain owners of property located in the Transit-Related Growth Area to provide funding for planning consultant services related to the preparation of a Transit-Related Growth Small Area Plan.

#### **4. COMMENTS FROM THE AUDIENCE**

Mayor Olem reviewed the process and asked those who wanted to provide Comments from the Audience to come forward.

The following individuals provided comments:

- Helen Wolfe, 1516 Thurber Street, Herndon, President of the Herndon Woman's Club, provided comments on the Wreaths Across America Day proclamation.
- Barbara Glakas, 935 Barton Oaks Place, Herndon, spoke about the many events in Town on Saturday, December 2, 2023, and congratulated Cindy Roeder, Director of Parks and Recreation, on her upcoming retirement.
- Jay Hadlock, 515 Alabama Drive, Herndon, provided comments on the success of this year's Wintermarkt and about developing community-based celebrations.
- Sherry Blanton, 549 Florida Avenue Apt. T-3, Herndon, provided comments on the ending of the Herndon Festival.
- Ann Vayda, 631 Oak Street, Herndon provided comments about the Historic District Review Board's November 15, 2023 regular meeting. She encouraged the Town Council to watch the video of this meeting.

#### **5. CONSENT**

- a. **Ordinance 23-O-21 to approve and authorize the Mayor to sign a 3-year cable television franchise extension between the Town and CoxCom, LLC**
- b. **Resolution 23-G-76 to approve an amendment to the Funding Agreement for Consulting Services, between the Town of Herndon and certain owners of property located in the Transit-Related Growth Area to provide funding for planning consultant services related to the preparation of a Transit-Related Growth Small Area Plan**
- c. **Resolution 23-G-77 to initiate consideration of a Comprehensive Plan Amendment, CPA #23-01, to amend Chapter 3, Land Use Plan, of the 2030 Comprehensive Plan adopted August 12, 2008, as amended through May 24, 2022, to adopt the Transit-Related Growth (TRG) Small Area Plan and incorporate it by reference into the Town's 2030 Comprehensive Plan**
- d. **Resolution 23-G-78 to endorse and authorize two funding applications to the Regional Jurisdiction and Agency Coordinating Committee (RJACC) of the Northern Virginia Transportation Authority (NVTA) for Fiscal Year (FY) 2030 Regional Surface Transportation Program (RSTP) and Congestion Mitigation Air Quality (CMAQ) funding**

- e. **Resolution 23-G-79 to award contract IFB# 24-03, Snow Removal and Ice Control Services**
- f. **Ordinance 23-O-22 to approve and authorize the Mayor to sign a lease agreement between the Town and the Honorable Irene Shin, Member of the House of Delegates, for office space at 397 Herndon Parkway**
- g. **Ordinance 23-O-23 to approve and authorize the Mayor to sign a lease agreement between the Town and the Honorable Jennifer Boysko, Virginia State Senator, for office space at 397 Herndon Parkway**
- h. **Ordinance 23-O-24 to approve and authorize the Mayor to sign a third lease amendment between the Town and TWC Association Management, Inc. to amend the rent for two renewal extension options for office space and parking spaces located at 397 Herndon Parkway**
- i. **October 17, 2023, Town Council Work Session Minutes**
- j. **October 24, 2023, Town Council Meeting Minutes**

On motion of Councilmember LeBlanc, seconded by Councilmember Scherff, the Consent Agenda items were approved and carried by a 6-0 roll call vote. The vote was: Councilmembers del Aguila, Dhakal, LeBlanc, and Scherff, Vice Mayor Hedrick and Mayor Olem voting "Aye." Councilmember Alam was absent.

## **6. ADJOURNMENT**

There being no further business, Mayor Olem adjourned the December 12, 2023, Town Council Regular Meeting at 8:30 p.m.

**Amanda E.M. Kertz**  
**Chief Deputy Town Clerk**

**Minutes approved by Town Council:**

[Note: Approved resolutions and ordinances are on file in the Town Clerk's office.]