Board of Supervisors

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April 27, 2022

MEMORANDUM TO: Stafford County Planning Commission

FROM: Jeffrey A. Harvey, AICP
Director of Planning and Zoning

SUBJECT: ***COM21154253; Comprehensive Plan Compliance Review – Stafford County High School #6***

ATTACHMENTS:

1. Attachment B – Project Description
2. Proposed Resolutions
3. Site Layout Plan, dtd 04/08/2022
4. Traffic Impact Analysis, dtd 03/08/2022
5. Application and Related Materials

Staff Project Manager: Mike Zuraf

ISSUE:

The Planning Commission is to consider a request to determine compliance with the Comprehensive Plan, in accordance with Virginia Code Sec. 15.2-2232, of a proposed street or connection to an existing street and a proposed public building or public structure, consisting of a new high school and public road connecting Truslow Road to Warrenton Road, on Tax Map Parcel Nos. 36-37 and 44-61A (Property).

BACKGROUND:

Location: South side of Truslow Road, across from the intersections of Cool Breeze Way and Summer Breeze Lane

Election District: Hartwood

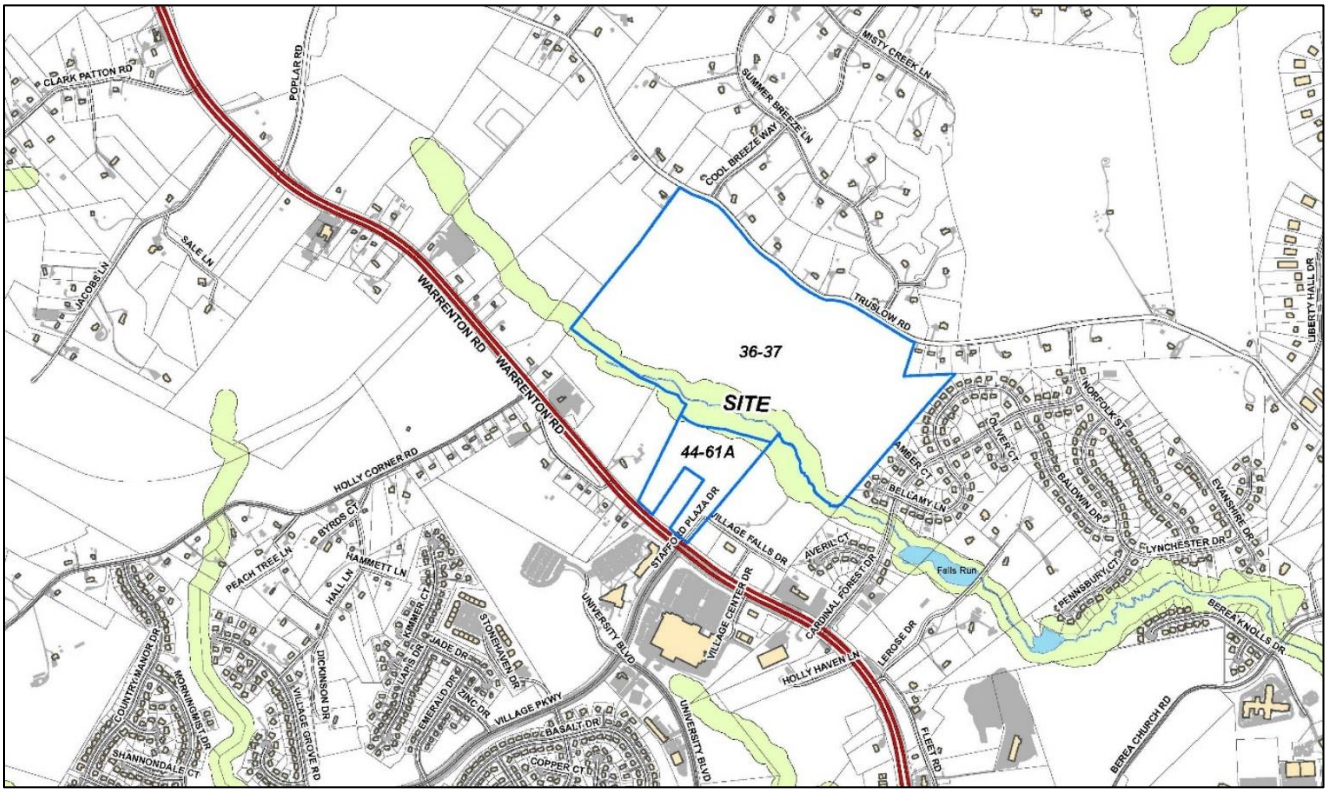
Applicant: Chris Fulmer
Stafford County Public Schools
31 Stafford Avenue
Stafford, VA 22554

Property Owners: Ward Corporation (TM Parcel No. 36-37)
1300 Piccard Drive, Suite 150
Rockville, MD 20850

Stafford E&A LLC (TM Parcel No. 44-61A)
1221 Main Street, Suite 1000
Columbia, SC 29201

Current Use: Undeveloped

Proposed Use: Public School



Location Map

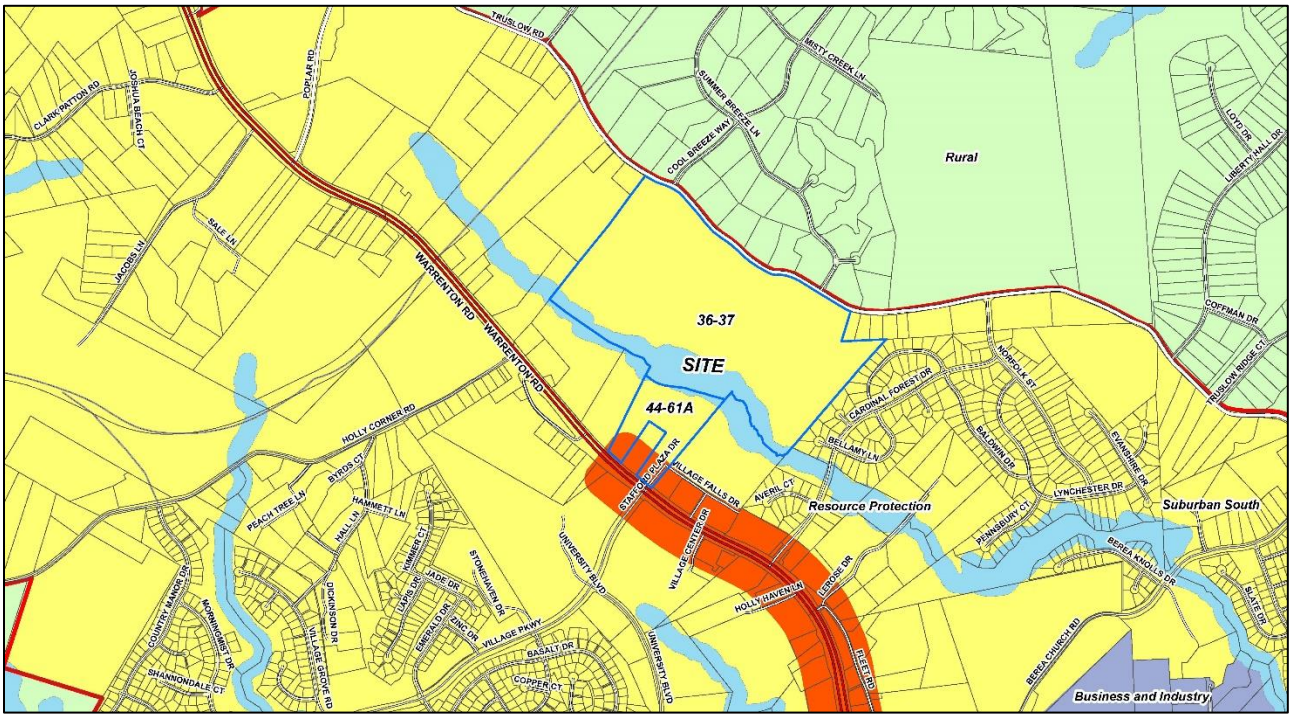
Application Date: December 17, 2021 (Complete Application: December 17, 2021)

Advertisement Dates: April 12, 2022 and April 19, 2022

Time Limit: June 26, 2022

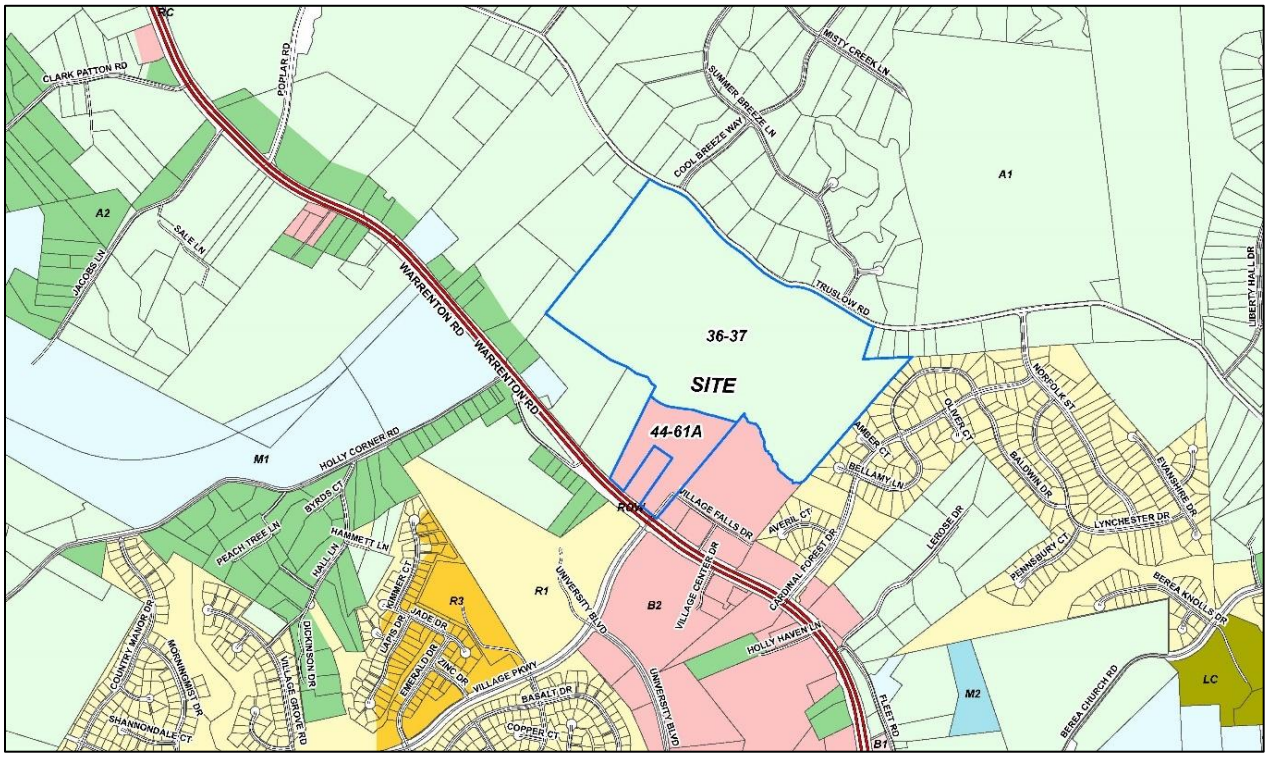
Property Size: 138.39 Acres

Comprehensive Plan: Suburban – Commercial Corridor & Resource Protection



Future Land Use Map

Zoning Classification: A-1, Agricultural
B-2, Urban Commercial



Zoning Map

Abutting Properties:

Location	**Zoning**	**Existing Use**	**Comprehensive Plan**
North	A-1, Agricultural	Residential (detached)	Rural
South	A-2, Rural Residential R-1, Suburban Residential	Residential (detached), College & Undeveloped	Commercial Corridor, Suburban
East	B-2, Urban Commercial R-1, Suburban Residential	Residential (detached) & Undeveloped	Suburban, Resource Protection
West	A-1, Agricultural	Residential (detached) & Undeveloped	Suburban, Resource Protection

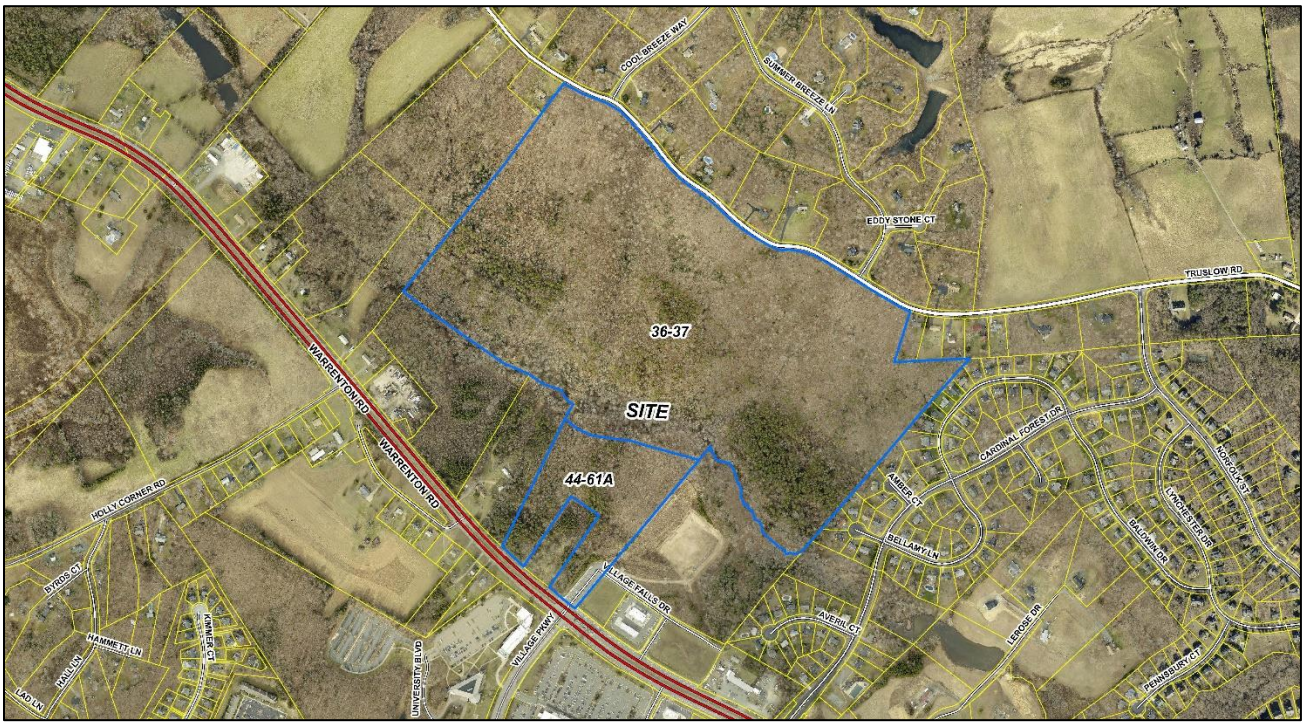
Utilities: The site is located within the Urban Services Area which is served by the public water and sewer system. An existing 12-inch waterline is located along Warrenton Road at the southeast corner of this site. A 16-inch water main is planned to be constructed west along Warrenton Road to serve the Urban Services Area in proximity to the planned Westlake development. An existing 21-inch sanitary sewer line is located in the southeast corner of the site along Falls Run. The sewer line is planned to be extended through the site, extending west to the planned Urban Services Area including the Westlake development.

Transportation: The site is located along Warrenton Road and Truslow Road. Warrenton Road is a 4-lane divided facility with a posted speed limit of 45 miles per hour in this location. The estimated traffic volume of this section of Warrenton Road is 43,000 vehicle trips per day. Truslow Road is a 2-lane undivided facility with a posted speed limit of 35 miles per hour in this location. The estimated traffic volume of this section of Truslow Road is 3,100 vehicle trips per day.

Existing Conditions

The majority of the site is wooded and undeveloped. Falls Run bisects the property from east to west. Associated wetlands and a 100-foot Critical Resource Protection Area (CRPA) buffer are located along the stream channel. Other perennial and intermittent stream channels feed into Falls Run. The Property has varying topography apart from a small level area in the central portion adjacent to Mine Road. There are small feeder streams which run through the Property, mainly at the northern end. Some wetland areas associated with the streams exist on the Property.

Other nearby uses include residential dwellings in the Willows neighborhood to the north and Cardinal Forest neighborhood to the east. Other large-lot residential uses surround the site. Uses adjacent to the site along Warrenton road include an automobile and truck repair use, residential dwellings, the Stafford Campus of the University of Mary Washington, Walmart, and undeveloped portions of a planned commercial development. An existing private street into the site (Stafford Plaza Drive), across from Village Parkway, was constructed concurrently with the Royal Farms.



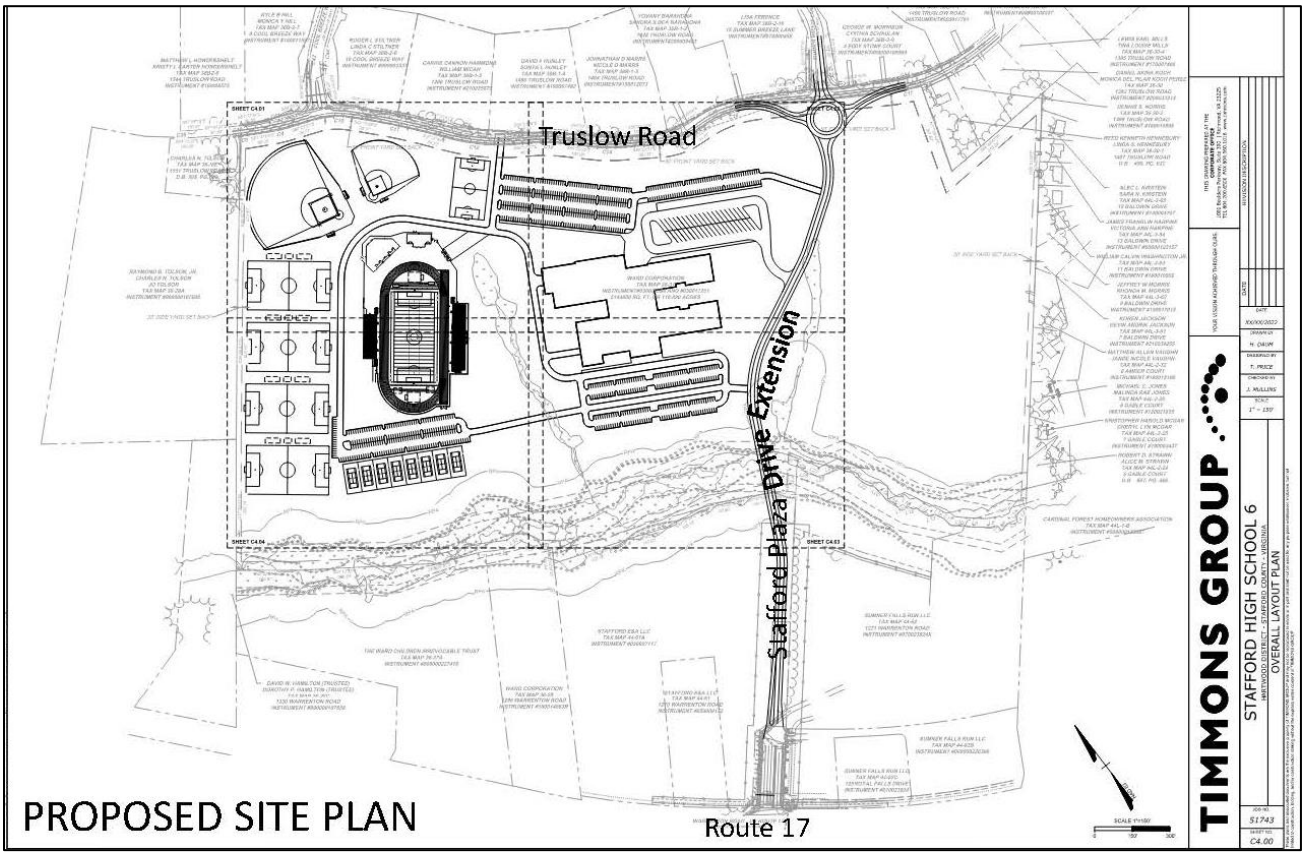
Existing Conditions - Aerial View

COMMENTS:

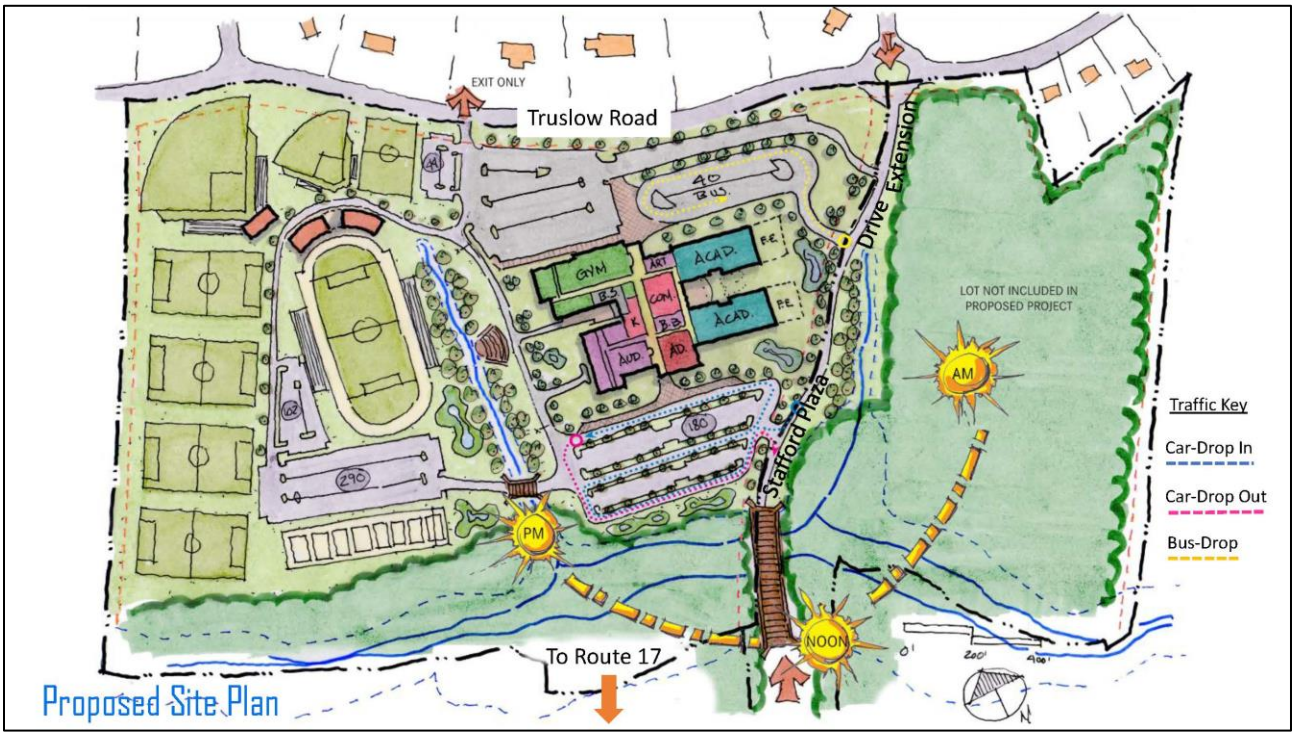
Proposal

The Stafford County Public School Division (SCPS) is proposing to construct a new high school on the subject property, along with a public road extension of Stafford Plaza Drive to access the school and connect Truslow Road to Warrenton Road. Although the total area of the two subject parcels totals 138.39 acres, the area of the high school site would be approximately 68.5 acres, excluding the road right-of-way area. The new school would relieve high school enrollment capacities that are projected to exceed 100 percent of the design capacity at the five existing high schools by the fall of 2023. In addition, the new school would be located in an underserved area of the County, reducing travel times in the southwestern corner of the County along the Warrenton Road corridor.

The school would be located on the south side of Truslow Road, and north side of Falls Run. The school building would be centrally located on the site on the west side of the connector road. The building would be surrounded by parking and access drives for bus and parent drop-off and pick-up areas and other staff and student parking. Athletic fields are proposed on the western end of the site. Three entrances are proposed off of the Stafford Plaza Drive extension into the school site and one exit only driveway is proposed onto Truslow Road. The school building is estimated to be around 290,000 square feet in size and designed to provide up to 2,150 seats. The Stafford Plaza Drive extension is anticipated to be a public road. A traffic circle is proposed at the Truslow Road intersection.



Site Layout Plan



School Site Layout

Comprehensive Plan Evaluation

Urban Services Area (USA)

The site is located within the Urban Services Area. The Urban Services Area is where development is recommended to be focused, including public facilities, utilities, and government services. The following Comprehensive Plan policies support the location of future schools within the Urban Services Area.

Sustainability (Goal 2)

> *Policy 2.2.1. Establish a clear Urban Services Area boundary in a location that is suitable to accommodate residential and commercial development characterized by the presence of public facilities, utilities, and government services.*

Fiscal Responsibility (Goal 3)

> *Policy 3.6.1. Future public facilities should be encouraged to be located within the USA. Exceptions may be made when the only way to meet Level of Service Standards or location criteria contained in the Public Facilities Plan is to locate the facility outside the USA or when land is dedicated to the County and the development of the site and any required infrastructure would not be cost prohibitive.*

Education (Goal 8)

> *Policy 8.1.3. Future schools should be located within the Urban Services Area (USA). The Board of Supervisors and School Board will work together to acquire school sites in advance of Stafford County Public School's short and long-term future needs.*

Other Education Policies

The following Education policy addresses the siting of new school locations.

> *Policy 8.1.4. When considering new school locations, the safety and well-being of the students should be a priority, with consideration of the following factors:*
>
> - *Locate near existing and planned residential areas to promote walking zones and/or minimize the length of bus trips.*
> - *Locate schools proximate to other public facilities and services necessary to the site (i.e. potable water, etc.) and means to assure safe access to schools (i.e. sidewalks, turn lanes, signalization, etc.).*
> - *Locate schools away from major electric transmission lines.*

This site is centrally located between several existing and planned residential communities, including England Run, Cardinal Forest, Stafford Lakes Village, and Westlake (planned). This site may only allow for walking zones from Cardinal Forest, but will greatly minimize the length of bus trips. These neighborhoods are split among the attendance zones for Colonial Forge High School, Mountain View High School, and Stafford High School.

The site is located close to existing water lines and the public sewer currently terminates on the property. The sewer line is planned to be extended along Falls Run to serve the Urban Services Area in proximity to the future Westlake development. As noted, a new public road will need to be constructed to serve the site, which would provide alternate routes to and from the school. The south end of the connector road would

connect to Warrenton Road at a signalized intersection and the north end would include a traffic circle, designed to promote safety.

This site is not in close proximity to any major electric transmission lines.

Future Land Use

The Comprehensive Plan's Future Land Use Map classifies the Property in the Suburban, Commercial Corridor, and Resource Protection Future Land Use designations. The Comprehensive Plan states that Suburban areas of the County are areas where suburban scale of development is most appropriate. Suburban areas are designated to be primarily residential in nature, but will be complimented by neighborhood and community-oriented activity centers, places of worship, parks and play areas, and retail and business activities. Suburban scale of development is considered single-family detached dwelling units, typically on ¼ to ½ acre lots, or potentially townhouse and multi-family dwellings under certain conditions. These areas are intended to serve as infill development in the proximity of the established communities in the northern and southern areas of the County. Structures should be low-rise in nature and not exceed three stories in height.

The commercial corridor designation is limited to the area closest to Warrenton Road. The school site is not proposed within this area. The Resource Protection designation reflects where sensitive environmental resources are located and recommended for protection. This area will be required to be preserved with the exception of the proposed road crossing and any necessary utility connections.

The school would be in close proximity to established neighborhoods in the vicinity. The site design is suburban in nature and the building is not proposed to exceed three stories. Staff would note that a separate conditional use permit will be required for the school, as the proposed building height of 48 feet exceeds the maximum building height of 35 feet in the A-1, Agricultural zoning district. To the north of the site, the Comprehensive Plan recommends Agricultural/Rural land use. That area includes the Willows, a large-lot rural residential development.

Public Facilities Plan

The Public Facilities Plan in the Comprehensive Plan projects additional facility needs based on projected future growth through year 2036. The Plan does not identify specific locations for most of the projected facilities, including high schools. The Plan projects the need for two additional high schools through year 2036.

Transportation Plan

<u>Transportation Improvements</u>
The Comprehensive Plan includes policies and recommendations to ensure a safe and efficient transportation network. The Transportation Plan includes a comprehensive list and map of Anticipated Transportation Needs across the County (Figure 4.1 and Table 4.1 in the Comprehensive Plan). The list and map include recommended improvements to existing roads and new roads.

- In this location, Truslow Road is recommended for a two-lane upgrade to bring the road up to current standards with wider travel lanes and shoulders and more gradual horizontal and vertical geometry. Currently, the CIP does not include improvements for this section of Truslow Road.

- The public road extension of Stafford Plaza Drive is not identified as a recommended road network improvement in the Transportation Plan. Staff would note that recent development proposals being contemplated on the same property had recommended the same road connection. Staff would note that Comprehensive Plan policies support network connections that provide more efficient patterns of traffic flow and circulation.

  Objective 7.4. Create more efficient patterns of traffic flow and circulation.

  Policy 7.4.5. Promote alternative routes to relieve congested corridors.

  A road connection from Truslow Road to Warrenton Road will also be beneficial from a public safety perspective, providing multiple access points to the school, and an alternate means for local traffic to bypass often congested Warrenton Road.

Adequate Levels of Service

Another transportation policy recommends that new development occur in a manner that avoids negative impacts on the surrounding road network.

> *Policy 7.7.7. Transportation facility improvements to be constructed with development projects should be designed to maintain a Level of Service (LOS) C for impacted intersections and/or road segments. Where achieving a LOS C is not practical given existing transportation deficiencies, improvements should be designed to not further degrade the LOS.*

To measure the proposed school against this Comprehensive Plan policy, a Traffic Impact Analysis (TIA) was prepared. It evaluated the impacts of the proposed school at each end of the planned extension of Stafford Plaza Drive, at Warrenton Road and Truslow Road, as well as the proposed site entrances. Some of the key results out of the study include:

- The overall LOS at the Warrenton Road / Stafford Plaza Drive intersection would degrade from LOS C to D in the AM peak hour, and maintain a LOS D in the PM peak hour, with an increase in delay from 36.5 seconds to 54.2 seconds.

- LOS would not be impacted at the Truslow Road / Summer Breeze Lane / Stafford Plaza Drive intersection.

- New site entrances are projected to operate adequately.

Key recommendations of the study include the following road improvements:

- Extend Stafford Plaza Drive north to Truslow Road.

- At Warrenton Road / Stafford Plaza Drive / Village Parkway, (1) install a second eastbound left turn lane on Warrenton Road, for traffic turning onto Stafford Plaza Drive, and (2) optimize signal timings. This improvement is needed to provide adequate capacity for the projected number of vehicles.

- At the Truslow Road / Summer Breeze Lane / Stafford Plaza Drive intersection, install either (1) westbound left turn and eastbound right turn on Truslow Road, or (2) a roundabout. The site layout

plan shows the proposed roundabout concept. The roundabout would serve a dual purpose of providing adequate LOS and improving safety by slowing down traffic on Truslow Road.

- Install the site entrances as shown on the sit layout plan.

State Code Provision 15.2-2232

This provision states that the Comprehensive Plan "shall controls the general or approximate location, character and extent of each feature shown on the plan". It prohibits construction of public infrastructure that is not identified in the Comprehensive Plan unless the Planning Commission approves the proposed infrastructure "as being substantially in accord with the Comprehensive Plan or part thereof".

SUMMARY OF POSITIVE AND NEGATIVE FEATURES:

POSITIVE:

1. The proposal is consistent with policies encouraging public facilities, specifically schools, to be located within the Urban Services Area.
2. The proposal is consistent with school location policies by locating near residential concentrations, proximate to other public facilities and away from power lines.
3. The school would be located in an underserved area greatly reducing travel times for students that currently have to travel to Colonial Forge High School and Mountain View High School.
4. The proposed use would be appropriate in the Suburban future land use designation.
5. The Public Facilities Plan identifies the need for this high school to accommodate projected growth.
6. The connector road is consistent with policies that promote more efficient traffic patterns and alternative routes.
7. The planned road network, with recommended improvements, is projected to maintain adequate service levels across most of the network with the new school.

NEGATIVE:

1. The project contributes to minor additional delays at the Warrenton Road / Stafford Plaza Drive intersection, inconsistent with the Comprehensive Plan policy discouraging further degradation of failing intersections.

RECOMMENDATION:

Staff recommends the Planning Commission find this request is substantially in accord (location, character and extent) with the Comprehensive Plan, pursuant to Planning Commission Resolution PCR22-03. Although the high school may generate impacts to the intersection with Warrenton Road, staff believes that the recommended road improvements would minimize these impacts.

JAH:MJZ:sjs

Attachments (5)

Attachment B - Project Description

As Stafford county continues to grow in population, High School #6 will relieve crowding and also significantly improve quality of life and community development opportunities. The guidance to begin planning for a new high school in the CIP is when the aggregate high school enrollment projections are 90% of the aggregate high school design capacity. In Fall 2021, actual high school enrollment was 95.2% of the aggregate high school design capacity. Guidance from the County Board of Supervisors on the opening year for a new high school in the CIP is when the aggregate high school enrollment projections are at 100% of the aggregate high school design capacity. Projections suggest that high school enrollment will exceed 100% of aggregate high school design capacity in Fall 2023. Temporary capacity solutions will be deployed to accommodate high school crowding until Fall 2025, when HS#6 is slated to open.

The new high school would be located within the Urban Service Area ("USA") boundary with access to public sewer of adequate capacity through the planned connection over parcel 36-37 to an existing manhole. The school's location is consistent with Policy 3.6.1 of the Comprehensive Plan that encourages future public facilities be located within the USA. Additionally, Policy 8.1.3 of the Comprehensive Plan explicitly states that "future schools should be located within the Urban Services Area".

The new high school would also have access to public sewer of adequate capacity through the planned connection over parcel 36-37 to an existing manhole. The school's access to public sewer is consistent with Policy 8.1.4 which suggests that consideration should be given to locate schools proximate to other public facilities and services necessary to the site (i.e. potable water, etc.) and means to assure safe access to schools (i.e. sidewalks, turn lanes, signalization, etc.).

The proposed school would also be served by adequate transportation infrastructure through a new public road connection over parcel 44-61A to Route 17. It would be well buffered from existing residential subdivisions while also being located in an area that is proximate to demand. The school's promixity to a demand area aligns with Policy 8.1.4 that also suggests locating schools near existing and planned residential areas to promote walking zones and/or minimize the length of bus trips. The design of the school is still under review, but total square footage is estimated to be at, or near, 290,000 square feet. HS#6 will provide up to 2,150 much needed seats and have an energy efficient and practical design.

PCR22-03

PROPOSED

PLANNING COMMISSION
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a public hearing of the Stafford County Planning Commission (Commission) held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 27th day of April, 2022, regarding a request for a Comprehensive Plan Compliance Review that had been advertised for hearing by the Commission:

MEMBERS: VOTE:
Kristen Barnes, Chairman
Albert Bain, Vice-Chairman
Steven Apicella
Dexter Cummings
Martin Martinez
Laura Sellers
Willie Shelton, Jr.

On motion of , seconded by , which carried by a vote of to , the following was adopted:

A RESOLUTION FINDING THE REQUEST FOR A PROPOSED STREET OR CONNECTION TO AN EXISTING STREET AND A PROPOSED PUBLIC BUILDING OR PUBLIC STRUCTURE, CONSISTING OF A NEW HIGH SCHOOL AND PUBLIC ROAD CONNECTING TRUSLOW ROAD TO WARRENTON ROAD, ON TAX MAP PARCEL NOS. 36-37 AND 44-61A, SUBSTANTIALLY IN ACCORD WITH THE COMPREHENSIVE PLAN, PURSUANT TO VIRGINIA CODE SECTION 15.2-2232

WHEREAS, Stafford County Public Schools, applicant, has requested a determination of compliance with the Comprehensive Plan, in accordance with Virginia Code Sec. 15.2-2232, of a proposed street or connection to an existing street and a proposed public building or public structure, consisting of a new high school and public road connecting Truslow Road to Warrenton Road, on Tax Map Parcel Nos. 36-37 and 44-61A; and

WHEREAS, the Commission duly advertised and held a public hearing for the request, and has carefully considered the merits of the request, the public testimony received at the public hearing, and the recommendations of County staff; and

WHEREAS, the Commission believes that the request is consistent with coordinated, adjusted, and harmonious development of Stafford County, Virginia, and which will in accordance with the present and probable future needs and resources of Stafford County, Virginia, best promote the health, safety, morals, order, convenience, prosperity, and general welfare of the citizens of Stafford County, Virginia, including the elderly and persons with disabilities;

WHEREAS, the Planning Commission finds that the request is substantially in accord with the Comprehensive Plan;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Planning Commission on this the 27th day of April, 2022, that this request to locate a new high school and public road connecting Truslow Road to Warrenton Road, on Tax Map Parcel Nos. 36-37 and 44-61A as applied for in application COM21154253, be and it hereby is found to be substantially in accord with the Comprehensive Plan for Stafford County.

_____
Kristen Barnes, Chairman

KB:JAH:mjz

PCR22-04

PROPOSED

PLANNING COMMISSION
COUNTY OF STAFFORD
STAFFORD, VIRGINIA

RESOLUTION

At a public hearing of the Stafford County Planning Commission (Commission) held in the Board Chambers, George L. Gordon, Jr., Government Center, Stafford, Virginia, on the 27th day of April, 2022, regarding a request for a Comprehensive Plan Compliance Review that had been advertised for hearing by the Commission:

MEMBERS: VOTE:
Kristen Barnes, Chairman
Albert Bain, Vice-Chairman
Steven Apicella
Dexter Cummings
Martin Martinez
Laura Sellers
Willie Shelton, Jr.

On motion of , seconded by , which carried by a vote of to , the following was adopted:

A RESOLUTION TO DENY THE REQUEST FOR A PROPOSED STREET OR CONNECTION TO AN EXISTING STREET AND A PROPOSED PUBLIC BUILDING OR PUBLIC STRUCTURE, CONSISTING OF A NEW HIGH SCHOOL AND PUBLIC ROAD CONNECTING TRUSLOW ROAD TO WARRENTON ROAD, ON TAX MAP PARCEL NOS. 36-37 AND 44-61A, NOT SUBSTANTIALLY IN ACCORD WITH THE COMPREHENSIVE PLAN, PURSUANT TO VIRGINIA CODE SECTION 15.2-2232

WHEREAS, Stafford County Public Schools, applicant, has requested a determination of compliance with the Comprehensive Plan, in accordance with Virginia Code Sec. 15.2-2232, of a proposed street or connection to an existing street and a proposed public building or public structure, consisting of a new high school and public road connecting Truslow Road to Warrenton Road, on Tax Map Parcel Nos. 36-37 and 44-61A; and

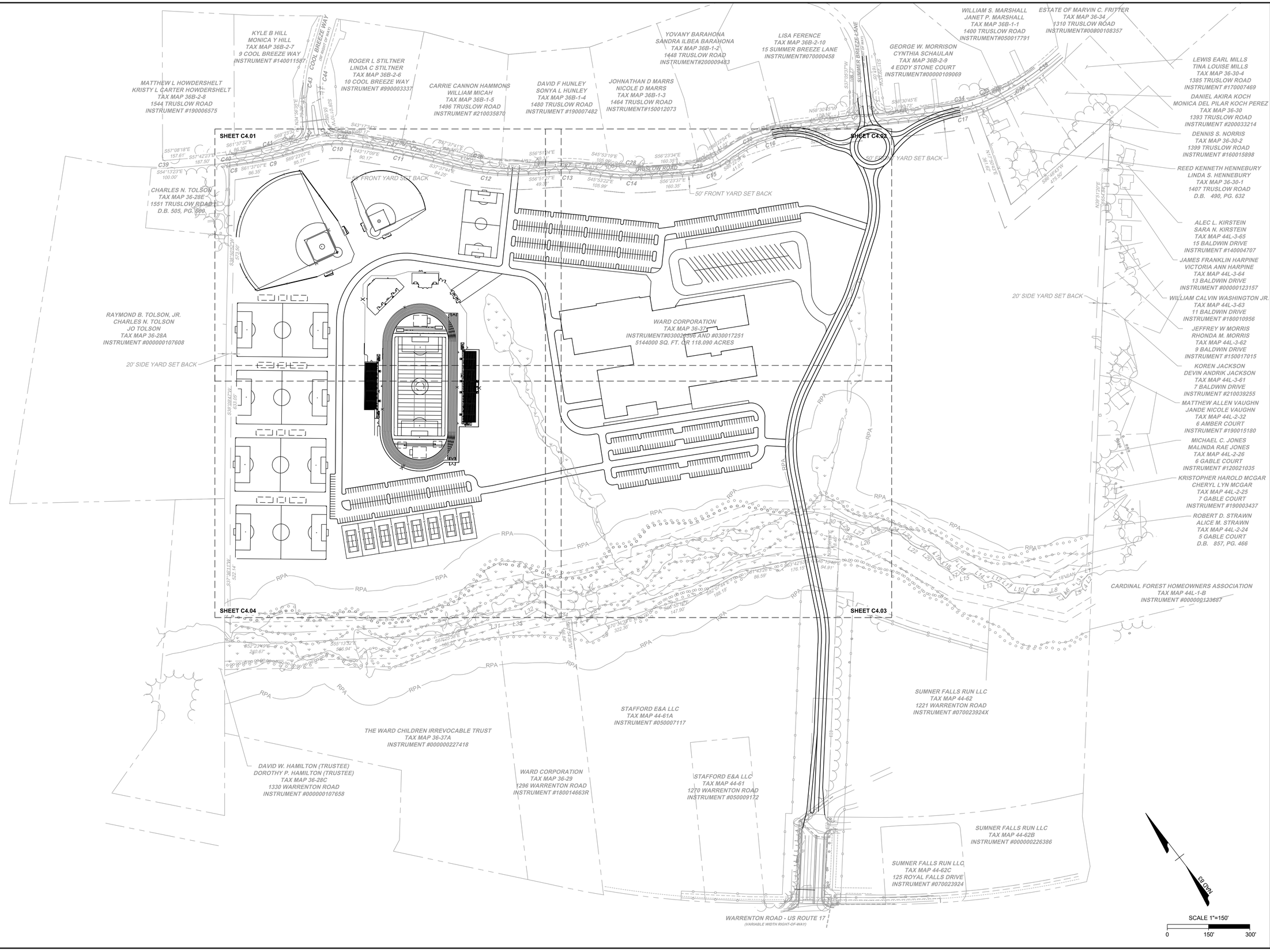
WHEREAS, the Commission duly advertised and held a public hearing for the request, and has carefully considered the merits of the request, the public testimony received at the public hearing, and the recommendations of County staff; and

WHEREAS, the Planning Commission finds that the request is not substantially in accord with the Comprehensive Plan;

NOW, THEREFORE, BE IT RESOLVED by the Stafford County Planning Commission on this the 27th day of April, 2022, that this request for a Comprehensive Plan Compliance Review on Tax Map Parcel Nos. 36-37 and 44-61A as applied for in application COM21154253, be and it hereby is denied.

_____
Kristen Barnes, Chairman

KB:JAH:mjz



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REVISION DESCRIPTION

DATE

DATE	XX/XX/2022
DRAWN BY	H. DAUM
DESIGNED BY	T. PRICE
CHECKED BY	J. MULLINS
SCALE	1" = 150'

STAFFORD HIGH SCHOOL 6

HARTWOOD DISTRICT - STAFFORD COUNTY - VIRGINIA

OVERALL LAYOUT PLAN

JOB NO.	51743
SHEET NO.	C4.00

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STAFFORD COUNTY HIGH SCHOOL #6

STAFFORD COUNTY, VIRGINIA

TRAFFIC IMPACT ANALYSIS

March 8, 2022

DRAFT

Prepared for:

Stafford County Public Schools

TIMMONS GROUP
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Contact: Thomas B. Ruff, PE, PTOE

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FIGURE 6-4: RIGHT-TURN LANE WARRANT, SB RIGHT AT NORTHERN ENTRANCE
FIGURE 6-5: LEFT-TURN LANE WARRANT, NB LEFT AT NORTHERN ENTRANCE
FIGURE 6-6: RIGHT-TURN LANE WARRANT, SB RIGHT AT SOUTHERN ENTRANCE
FIGURE 6-7: LEFT-TURN LANE WARRANT, NB LEFT AT SOUTHERN ENTRANCE
FIGURE 6-8: RIGHT-TURN LANE WARRANT, SB RIGHT AT BUS ENTRANCE
FIGURE 6-9: LEFT-TURN LANE WARRANT, NB LEFT AT BUS ENTRANCE (AM)
FIGURE 6-10: LEFT-TURN LANE WARRANT, NB LEFT AT BUS ENTRANCE (PM)
FIGURE 6-11: 2027 PROPOSED FUTURE GEOMETRY

1 EXECUTIVE SUMMARY

This study presents the findings of a traffic impact analysis (TIA) for the proposed development of Stafford County High School #6 on Truslow Road in Stafford County, VA. The development includes a 2,150-student high school. The site is located north of US Route 17 (Warrenton Road), south of Truslow Road, and west of the extension of Village Parkway/Stafford Plaza Drive. This report addresses the associated traffic impacts on the surrounding roadway network.

The study area shown in Figure 2-1 includes the following two (2) intersections that are adjacent to the site:

1. US Route 17 and Stafford Plaza Drive/Village Parkway (Signalized); and
2. Truslow Road and Summer Breeze Lane (Unsignalized).

The conceptual site plan is shown on Figure 2-2. The site will be serviced by the extension of Stafford Plaza Drive from its current terminus just north of US Route 17 to Truslow Road at the intersection of Summer Breeze Lane.

The purpose of this analysis is to determine the impact of the proposed development on the surrounding roadway network. This traffic impact analysis (TIA) has been prepared in accordance with VDOT TOSAM traffic engineering practices and scoped with Stafford County Public Schools.

The following steps were taken to determine the potential traffic impacts associated with this project:

1. Data Collection – Traffic counts were conducted at the study intersections the week of November 23, 2021 when public school was in session and were compared with past traffic counts on the US Route 17 corridor to identify any changes in traffic due to the ongoing COVID-19 pandemic. No traffic volume discrepancies were identified.

2. Traffic Growth – A 1.0% annual growth rate was applied to the study area road network based on growth on US Route 17 in the study area over the last 5 years. The growth rate was compounded annually for each future scenario. No background developments were identified within the vicinity of the proposed development.

3. Trip Generation – Traffic generated by the proposed development was estimated using the 11th Edition of the Institute of Transportation Engineers' *Trip Generation Manual*. The number of students was used as the independent variable to determine the trip generation.

4. Traffic Distributions – The distribution of trips generated by the proposed development was based on the existing traffic volumes, the nature of use, the expected student population for the new high school, the density of surrounding residential development, and the roadway network.

5. Traffic Projections – Future traffic volumes were determined using the existing traffic counts, the 1.0% growth rate, and the trips generated by the site.

6. Traffic Analysis – The existing, background, and future traffic volumes at all existing intersections and proposed entrances were analyzed utilizing Synchro for signalized/unsignalized and SIDRA for roundabouts.

1.1 PROPOSED DEVELOPMENT

The proposed development includes a high school that services 2,150 students. Stafford County Public Schools intends to pursue construction of the site within the next 5 years and the school will be operational by 2027. Since the exact timeline of construction and operation is not known at this time, a buildout year of 2027 was utilized to provide a conservative estimate.

To evaluate the impacts of the traffic generated by the proposed development, analyses were completed using traffic associated with the weekday AM and PM peak hour of the generator. This is based on the Stafford County Public Schools schedule which starts high schools at 9:35 AM and dismisses at 3:35 PM; these peaks are not consistent with those of the adjacent roadways.

As indicated in Table 1-1, on a typical weekday, the 2,150-student high school is anticipated to generate approximately 4,171 daily trips, 936 AM school peak hour trips, and 601 PM school peak hour trips.

Table 1-1: Trip Generation Summary

LAND USE	ITE CODE	AMOUNT	UNITS	WEEKDAY						
				ADT	SCHOOL AM PEAK HOUR			SCHOOL PM PEAK HOUR		
					IN	OUT	TOTAL	IN	OUT	TOTAL
High School	525	2,150	Students	4,171	636	300	936	192	409	601

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 11th Edition (2021)

1.2 PRINCIPAL FINDINGS

Generally, there are no operational issues at the existing unsignalized intersection of Truslow Road and Summer Breeze Lane. At the signalized intersection of US Route 17 and Village Parkway/Stafford Plaza Drive the minor side streets experience poor levels of service and delay, which is expected as the signals are optimized to prioritize the mainline through movements. The individual movements and approaches that are experiencing queuing issues under existing conditions will continue to witness similar conditions with background growth.

With the addition of site traffic, the operational, queuing, and capacity deficiencies observed under existing/background conditions continue, with a limited number or movements absorbing a majority of the new traffic. Overall conditions remain generally the same with a noted need for 2nd eastbound left turn late on US Route 17 at Village Parkway/Stafford Plaza Drive to accommodate site-generated traffic.

The addition of the 2nd eastbound left turn lane on US Route 17 at Village Parkway/Stafford Plaza Drive, as well as the optimized signal timings, will increase the capacity of the intersection, better accommodate traffic queues, and offset the additional site-generated traffic.

Overall, the proposed roadway extension will generate limited cut-through traffic to/from US Route 17 due to the lack of further network connectivity. The future traffic associated with the school will occur during specific peak times and not create additional traffic issues throughout the day along the nearby roadway network.

The preliminary site location of the proposed Stafford High School #6 will draw students from the existing Colonial Forge, Stafford, and Mountain View High Schools. The proposed site location will reduce capacity at all 3 existing schools as well as reducing student drive times for residential areas along the US Route 17 corridor.

1.3 RECOMMENDATIONS

The installation of recommended roadway improvements will correspond with the traffic generated by the respective development of a 2,150-student high school. The focus of the work within this report is identifying a comprehensive access plan that provides functional access to the site and preserves the capacity of the surrounding roadway network.

To accommodate the anticipated traffic associated with Stafford County High School #6, the recommended improvements plan is as follows:

- Extend Stafford Plaza Drive approximately 2,600' north from its current terminus to form 4th leg of the intersection of Truslow Road and Summer Breeze Lane.

- US Route 17 at Village Parkway/Stafford Plaza Drive
    - Install 2nd left turn lane on EB US Route 17 at Village Parkway/Stafford Plaza Drive, including storage and taper to meet VDOT minimums of 200 feet by 200 feet.
    - Optimize signal timings for the intersection of US Route 17 at Village Parkway/Stafford Plaza Drive to account for the revised geometry and additional traffic volumes. It is understood that US Route 17 is a coordinated corridor and that the entire corridor may need to be reviewed after installation of the proposed school development.

- Truslow Road at Summer Breeze Lane/Proposed Site Entrance
    - Install a WB left turn lane and EB right turn lane on Truslow Road, including storage and tapers to meet VDOT minimums of 200 feet by 200 feet.
      OR
    - Install a single-lane roundabout at the intersection.

- Install three (3) full access entrances along the proposed extension of Stafford Plaza Drive to serve student, employee, parent/visitor, and bus traffic.
    - At the northern and southern entrances, install a NB left turn lane and SB right turn lane on the proposed extension of Stafford Plaza Drive, including storage and tapers to meet VDOT minimums of 200 feet by 200 feet.

- Install one (1) exit-only access point on Truslow Road.

The existing traffic signal on US Route 17 at Village Parkway/Stafford Plaza Drive has the capacity to accommodate the improvements (2nd EB left turn lane) without replacement as only changes to existing signage and/or signal head placement will be required. The existing traffic signals are not recommended for full replacement as part of this development.

It should be noted that the recommended improvements will require coordination with VDOT to ensure that the traffic signal timings within the study area are reviewed for potential improvements to the overall operations of the US Route 17 corridor.

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2 BACKGROUND INFORMATION

2.1 Study Area Limits

The study area shown in Figure 2-1 includes the following two (2) intersections:

1. US Route 17 and Stafford Plaza Drive/Village Parkway (Signalized); and
2. Truslow Road and Summer Breeze Lane (Unsignalized).

2.2 Description of Development

The proposed development will consist of a 2,150-student high school. The site will be serviced by the extension of Stafford Plaza Drive from its current terminus just north of US Route 17 to Truslow Road at the intersection of Summer Breeze Lane.

The conceptual site layout can be found in Figure 2-2.

2.3 Existing Roadway Network

The existing intersection geometry for each of the two (2) study intersections is shown on Figure 2-3. This includes the traffic control, lane geometry, and turn lane storage for all approaches.

US Route 17 is a four-lane, divided principal arterial with a posted speed limit of 45 mph. According to 2019 VDOT AADT traffic data (latest data available pre-pandemic), US Route 17 services 73,000 vehicles per day between I-95 and Holly Corner Road and 25,000 vehicles per day between Holly Corner Road and Hartford Road.

Truslow Road is a two-lane, undivided major collector road with a posted speed limit of 35 mph. According to 2019 VDOT AADT data, Truslow Road services 3,100 vehicles per day.

Summer Breeze Lane is a two-lane, undivided local road with a posted speed limit of 25 mph. According to 2019 VDOT AADT data, Summer Breeze Lane services 550 vehicles per day in the vicinity of the site.

Village Parkway is a four-lane, divided minor collector with a posted speed limit of 35 mph. According to 2019 VDOT AADT data, Village Parkway services 8,900 vehicles per day.

2.4 EXISTING TRAFFIC VOLUMES

Existing count data was obtained from a peak hour directional turning movement count at each of the two (2) study intersections noted above. The peak hour counts were collected on Tuesday, November 23, 2021 from 8:30 AM to 10:30 AM and from 2:30 PM to 4:30 PM. Data collection was performed on a typical weekday when schools were in operation and no weather delays were present.

The counts were collected at times that correspond with the current start and release schedule for high schools in Stafford County. High schools begin courses at 9:35 AM and end at 3:35 PM, therefore, the count data was collected one hour before and after those time periods to retrieve the school AM and school PM peak hour volumes.

The peak hour counts included heavy vehicles by movement and pedestrian counts. The complete count data is provided in Appendix A.

The count data was used to develop the 2021 existing peak hour volumes used in the analyses. The 2021 existing AM (9:30 – 10:30) and PM (3:30 – 4:30) peak hour volumes are summarized on Figure 2-4.

The counts were compared against past traffic counts on the US Route 17 corridor to identify any changes in traffic due to the ongoing COVID-19 pandemic. Based on this comparison, no traffic volume issues were identified and therefore the 2021 traffic counts were utilized without adjustment.

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Surrounding Roadway Network and Site Location Stafford County High School #6

Figure 2-1

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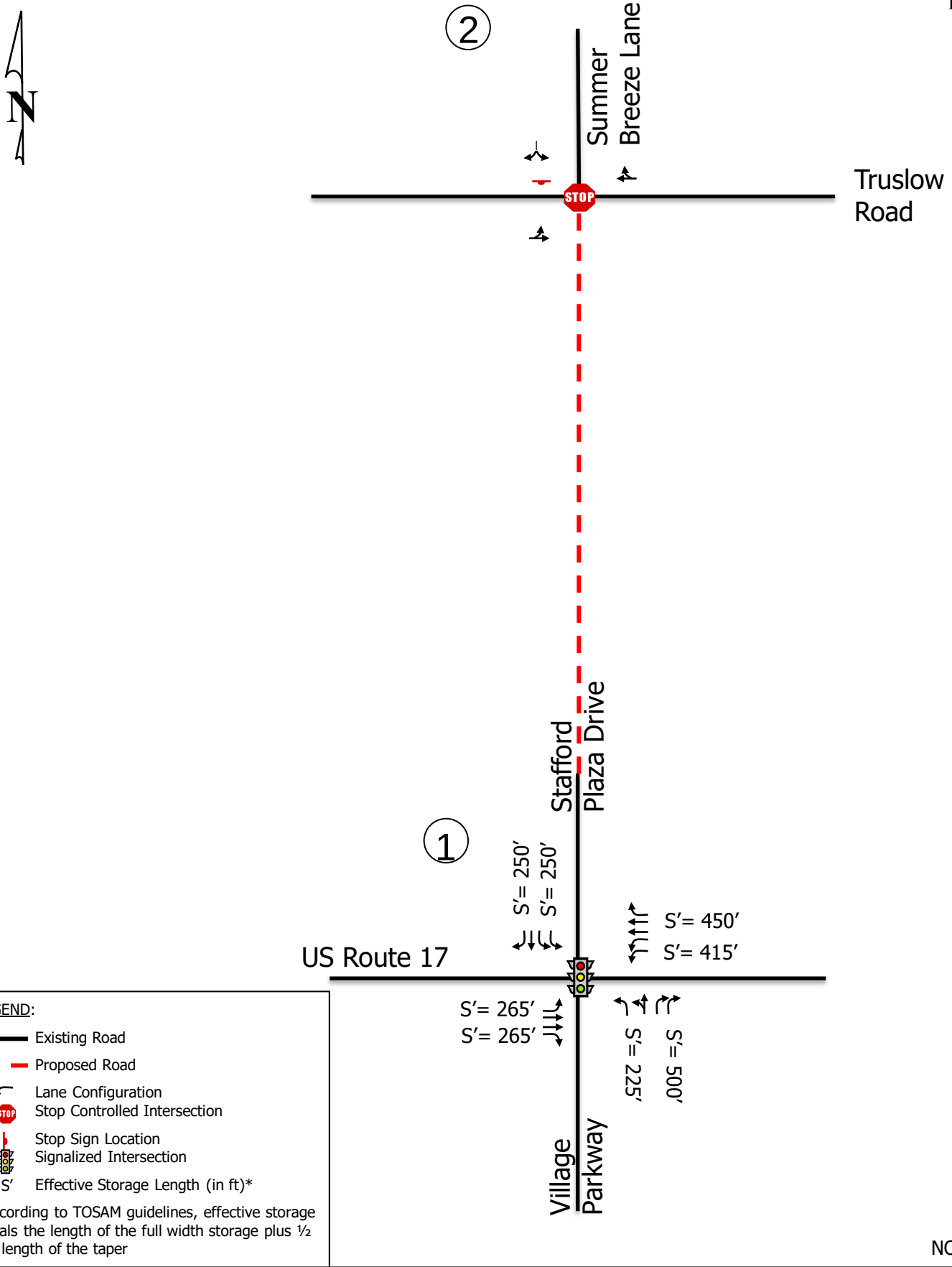
Conceptual Site Plan
Stafford County High School #6

Figure
2-2



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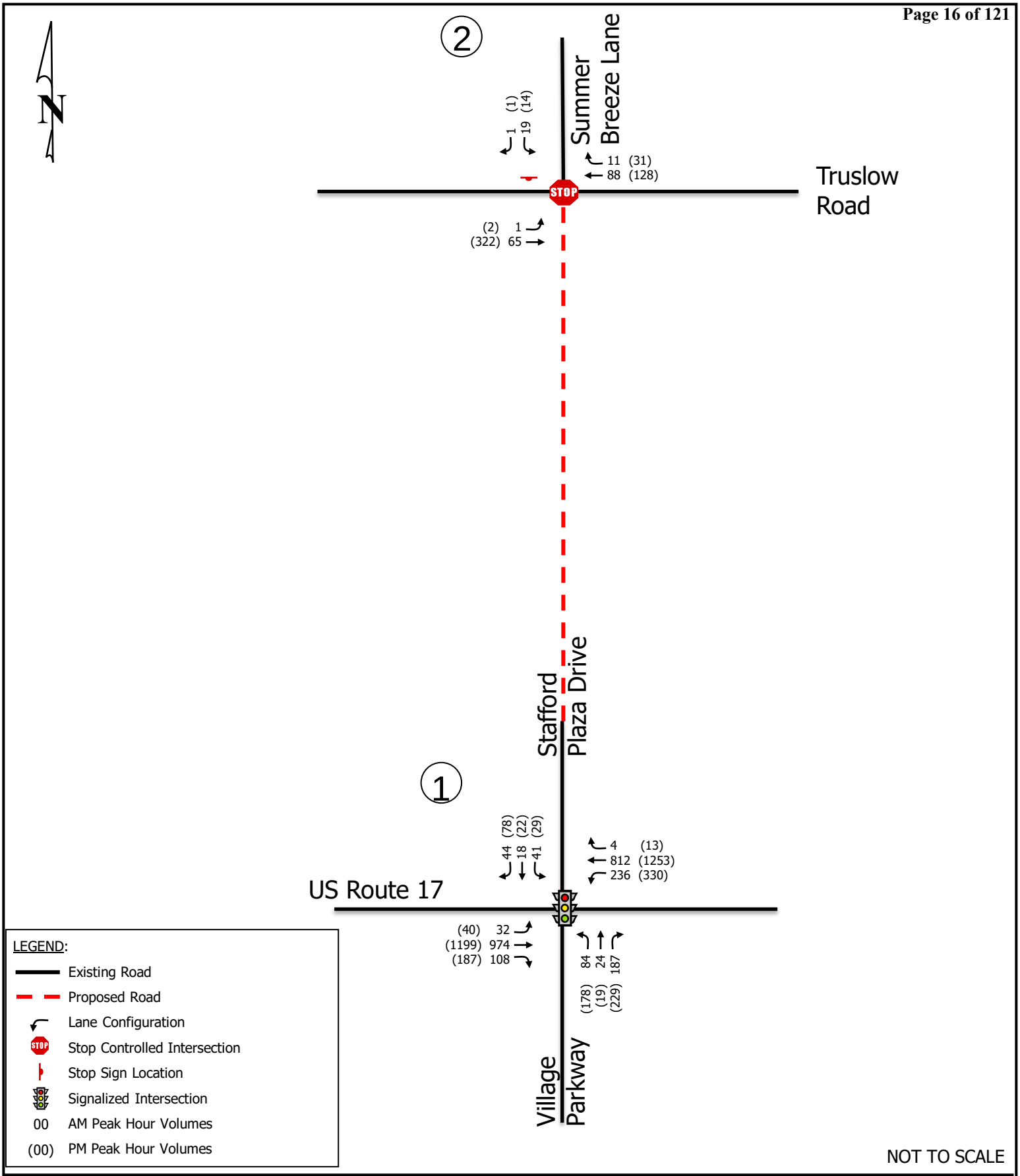
2021 Existing Geometry
Stafford County High School #6

Figure 2-3



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2021 Existing Volumes
Stafford County High School #6

Figure 2-4

3 ANALYSIS OF EXISTING CONDITIONS

3.1 CAPACITY ANALYSES

Level of service calculations for the intersections within the study area were performed using SYNCHRO Version 10. SYNCHRO calculates delay based on techniques outlined in the 2000 Highway Capacity Manual. HCM 2000 methodologies were utilized for analysis as opposed to the latest HCM 6th Edition or HCM 2010 methodologies due to the non-standard NEMA phasing that is present with the lane geometry for the signalized intersections within the study area.

The two (2) existing study intersections were analyzed using the 2021 existing volumes shown on Figure 2-4. These intersections, both signalized and unsignalized, were analyzed using SYNCHRO Version 10 based on 2000 HCM methodologies with the following assumptions:

- 12-foot lane widths;
- No parking activity or bus stops;
- Peak hour factor (PHF) by total intersection was determined from the traffic counts for existing conditions analysis;
- For background analysis, the existing PHF was utilized or a PHF of 0.92, whichever was higher;
- For total analysis, the existing PHF was utilized or a PHF of 0.92, whichever was higher, with the exception of all movements entering or exiting the proposed site access road to the proposed school development. A PHF of 0.50 was utilized for these movements at the intersection of US Route 17 at Stafford Plaza Drive/Village Parkway and the intersection of Truslow Road/Summer Breeze Lane/Proposed Access Road due to the condensed nature of school traffic.
- Signal timing data provided by VDOT in November 2021; and
- Heavy vehicle (HV) percentages by movement as determined from the collected traffic data.

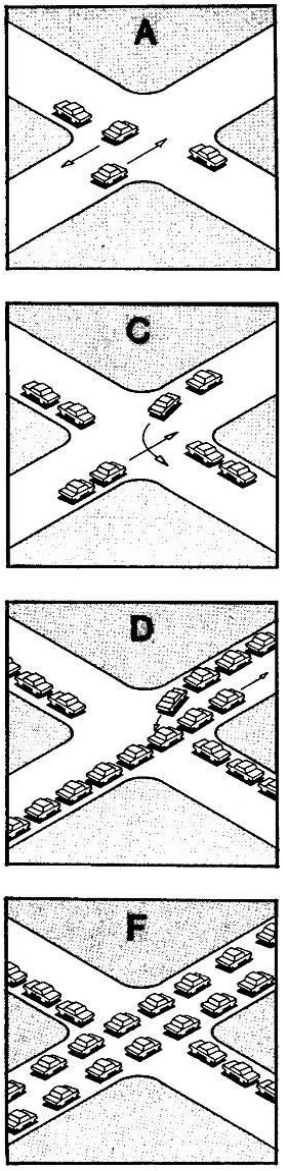
It should be noted that all references to AM and PM peak hour in this report refer to the school AM and the school PM peak hours, respectively, and not the overall roadway AM and PM peak hours.

Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. The Highway Capacity Manual methodologies govern how the capacity analyses are conducted and how the results are interpreted. Levels of service (LOS) are determined for each part of the roadway network. The general standard for an overall intersection is LOS D representing acceptable results and the standard for individual traffic movements is LOS E. Table 3-1 shows in detail how each of these levels of service are interpreted.

Table 3-1: Level of Service Definitions

Level of Service	Roadway Segments or Controlled Access Highways	Intersections
A	Free flow, low traffic density.	No vehicle waits longer than one signal indication.
B	Delay is not unreasonable, stable traffic flow.	On a rare occasion motorists wait through more than one signal indication.
C	Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists.	Intermittently drivers wait through more than one signal indication, and occasionally backups may develop behind left turning vehicles, traffic flow still stable and acceptable.
D	Movements more restricted, queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, thus preventing excessive backups.	Delays at intersections may become extensive with some, especially left-turning vehicles waiting two or more signal indications, but enough cycles with lower demand occur to permit periodic clearance, thus preventing excessive backups.
E	Actual capacity of the roadway invloves delay to all motorists due to congestion.	Very long queues may create lengthly delays, especially for left-turning vehicles.
F	Forced flow with demand volumes greater than capacity resulting in complete congestion. Volumes drop to zero in extreme cases.	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a storage ares during part or all of an hour.

SOURCE: *"A Policy on Design of Design of Urban Highways and Arterial Streets"* - AASHTO, 1973 based upon material published in *"Highway Capacity Manual"*, National Academy of Sciences, 1965.



For both unsignalized and signalized intersections, level of service is defined in terms of delay, a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Table 3-2 summarizes the delay associated with each LOS category:

Table 3-2: Unsignalized and Signalized Intersection Level of Service Criteria

Signalized Intersections		Unsignalized Intersections	
Level of Service	Control Delay per Vehicle (sec/veh)	Level of Service	Average Control Delay (sec/veh)
A	≤ 10	A	0 to 10
B	> 10 to ≤ 20	B	> 10 to ≤ 15
C	> 20 to ≤ 35	C	> 15 to ≤ 25
D	> 35 to ≤ 55	D	> 25 to ≤ 35
E	> 55 to ≤ 80	E	> 35 to ≤ 50
F	> 80	F	> 50

Source: Exhibit 16-2 and Exhibit 17-2 from TRB's "Highway Capacity Manual 2000"

3.2 2021 Existing Traffic Volumes Analysis

Table 3-3 summarizes the 2021 existing intersection LOS, delay, 95th percentile queue lengths (Synchro), and maximum queue lengths (SimTraffic) based on the 2021 existing intersection geometry (Figure 2-3) and 2021 existing peak hour traffic volumes shown on Figure 2-4. The corresponding SYNCHRO and SimTraffic reports are included in Appendix B. Note that the intersection numbers shown on the LOS, delay, and queue lengths summary tables correspond with the intersection numbers used in the SYNCHRO models and report figures.

The signalized intersection of Village Parkway/Stafford Plaza Drive and US Route 17 operates at an overall LOS C in both the AM and PM peaks. The eastbound approach operates at LOS C in the AM peak and at LOS D in the PM peak. The westbound approach operates at LOS C in the AM peak and at LOS D in the PM peak. The northbound approach operates at LOS D in the AM peak and at LOS F in the PM peak. The southbound approach operates at LOS E in the AM peak and at LOS F in the PM peak. All queues are shown to fit within the existing storage, however, the eastbound approach in the AM and PM peaks has through movement queues that may limit access to the turn lane.

At the unsignalized intersection of Truslow Road and Summer Breeze Lane the eastbound and westbound mainline approaches operate at LOS A in both the AM and PM peaks. The southbound approach operates at LOS A in the AM peak and a maximum queue of 50 feet. The southbound approach operates at LOS B in the PM peak and a maximum queue of 34 feet.

Table 3-3: Intersection Level of Service, Delay, and Queue Summary
2021 Existing Traffic and Existing Geometry

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)
1. US Route 17 (E-W) at	EB Left	265	57.8	E	m61	249	76.2	F	#91	246
Village Parkway/Stafford Plaza Drive	EB Thru		31.4	C	563	458	33.9	D	642	541
Signalized	EB Right	265	17.2	B	m34	265	20.1	C	11	265
	EB Approach		*30.8*	*C*	--	--	*33.3*	*D*	--	--
	WB Left (2)	415	63.6	E	#157	208	96.3	F	238	251
	WB Thru		18.6	B	325	365	8.3	A	82	427
	WB Right	450	9.8	A	0	16	10.1	B	m0	20
	WB Approach		*28.7*	*C*	--	--	*26.5*	*D*	--	--
	NB Left	225	61.3	E	97	102	78.4	F	#197	163
	NB Left-Thru		60.9	E	98	150	77.5	F	#198	195
	NB Right (2)	500	44.5	D	38	123	47.9	E	60	159
	NB Approach		*50.6*	*D*	--	--	*61.8*	*F*	--	--
	SB Left (2)	250	60.5	E	39	79	69.6	F	32	71
	SB Thru		60.8	E	43	57	71.7	F	54	70
	SB Right	250	53.2	D	0	64	62.6	F	0	112
	SB Approach		*57.5*	*E*	--	--	*65.7*	*F*	--	--
	Overall		**33.3**	**C**	**--**	**--**	**34.8**	**C**	**--**	**--**
2. Truslow Road (E-W) at	EB Left-Thru		0.1	A	0	3	0.1	A	0	17
Summer Breeze Lane (S)	*EB Approach*		*0.1*	*A*	--	--	*0.1*	*A*	--	--
Unsignalized	WB Thru-Right		0.0	A	0	0	0.0	A	0	0
	WB Approach		*0.0*	A	--	--	*0.0*	*A*	--	--
	SB Left-Right		9.6	A	2	50	11.8	B	2	34
	SB Approach		*9.6*	*A*	--	--	*11.8*	*B*	--	--

[1] *Overall intersection LOS and delay reported for signalized intersections only.*

[2] *Dual turn lanes; average storage is provided.*

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

4 ANALYSIS OF BACKGROUND CONDITIONS WITHOUT DEVELOPMENT

To complete the analysis of the future background conditions (without development), the existing volumes were projected to 2027 using an annual growth rate.

4.1 Future Background Traffic Volumes

An annual compounded growth rate of 1.0% was applied to the 2021 existing traffic volumes for the anticipated buildout period. This growth rate is based on a review of available VDOT traffic data over 5 years (2015-2019), which shows this section of US Route 17 has seen an increase of approximately 0.8%. A 1% growth rate was chosen to be conservative.

The 2027 background AM and PM peak hour volumes used in the analyses are shown on Figure 4-1.

4.2 Capacity Analyses

Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. The general standard for the overall intersection is LOS D representing acceptable results and the standard for individual traffic movements is LOS E. For detailed information about level of service definitions and criteria for unsignalized and signalized intersections, see Chapter 3 on capacity analysis.

It should be noted that all references to AM and PM peak hour in this report refer to the school AM and the school PM peak hours, respectively, and not the overall roadway AM and PM peak hours.

The two (2) existing intersections used in the 2021 analysis above were analyzed using the 2027 background volumes shown on Figure 4-1. These intersections, both signalized and unsignalized, were analyzed using SYNCHRO Version 10 based on 2000 HCM methodologies using the assumptions listed in Chapter 3. For all the future background analyses, the minimum peak hour factor is the existing PHF or 0.92, whichever is higher.

4.3 2027 Background Traffic Volumes Analysis

Table 4-1 summarizes the 2027 background intersection LOS, delay, 95th percentile queue lengths (Synchro), and maximum queue lengths (SimTraffic) based on the 2021 existing intersection geometry (Figure 2-3) and 2027 background peak hour traffic volumes shown on Figure 4-1. The corresponding SYNCHRO and SimTraffic reports are included in Appendix C. Note that the intersection numbers shown on the LOS, delay, and queue lengths summary tables correspond with the intersection numbers used in the SYNCHRO models and report figures.

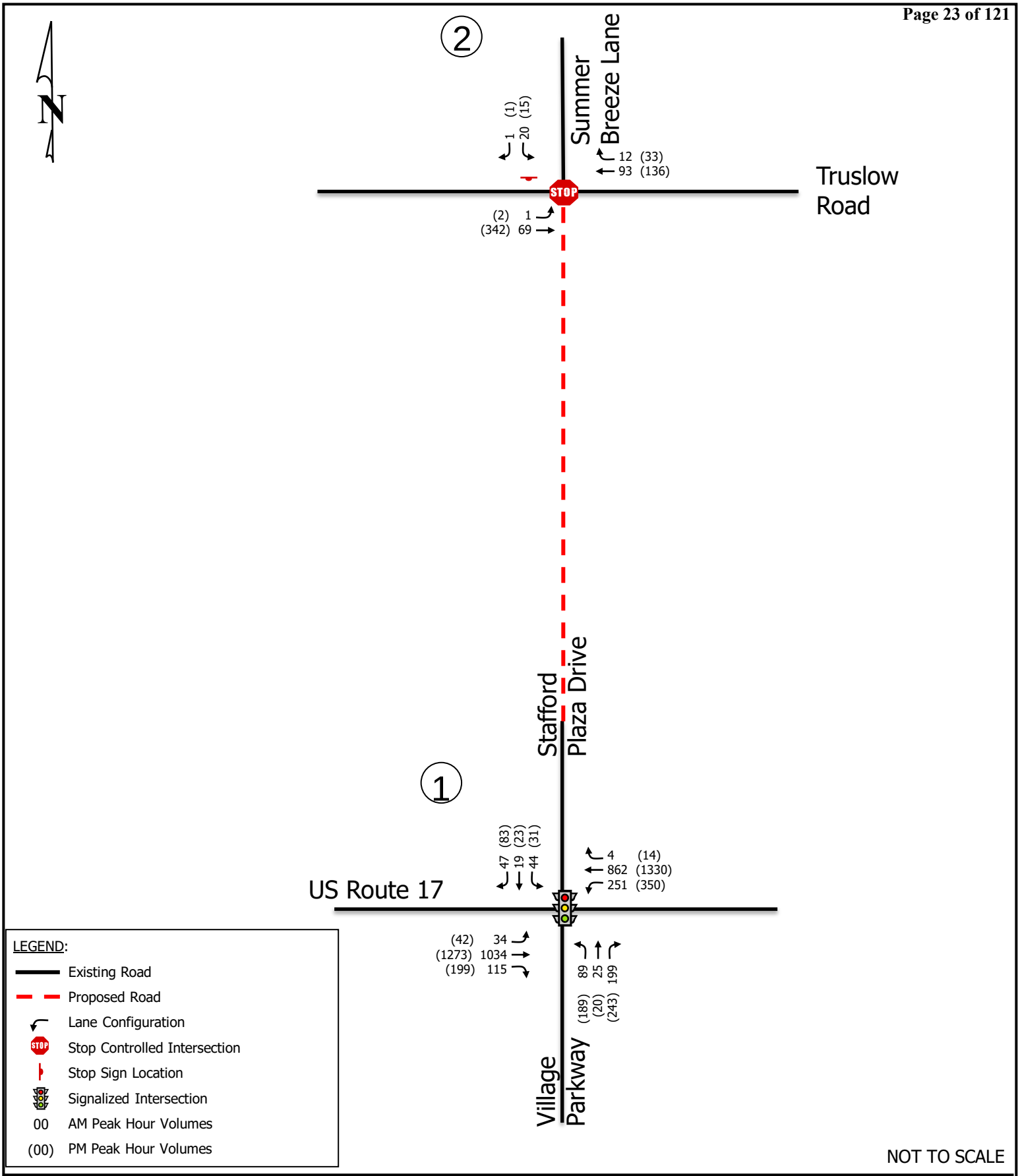
The signalized intersection of Village Parkway/Stafford Plaza Drive and US Route 17 continues to operate at an overall LOS C in the AM peak but worsens to operate at LOS D in the PM peak hour. The eastbound approach continues to operate at LOS C in the AM peak and worsens to operate at LOS E in the PM peak. The westbound approach continues to operate at LOS C in the AM peak and at LOS D in the PM peak. The northbound approach continues to operate at LOS D in the AM peak and at LOS F in the PM peak. The southbound approach continues to operate at LOS E in the AM peak and at LOS F in the PM peak. All queues are shown to fit within the existing storage, however, the eastbound approach in the AM and PM peaks continue to have through movement queues that may limit access to the turn lane.

At the unsignalized intersection of Truslow Road and Summer Breeze Lane the mainline eastbound and westbound approaches continue to operate at LOS A in both the AM and PM peaks. The southbound approach continues to operate at LOS A in the AM peak and a maximum queue of 46 feet. The southbound approach continues to operate at LOS B in the PM peak and a maximum queue of 30 feet.

Overall, any operational, queuing, and capacity deficiencies observed under existing conditions will continue under the 2027 background conditions. There are no significant differences in the operations of the study intersections during the 2027 background conditions. The individual movements and approaches that experience queuing issues will continue.

Table 4-1: Intersection Level of Service, Delay, and Queue Summary
2027 Background Traffic Volumes

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)
1. US Route 17 (E-W) at	EB Left	265	58.6	E	m64	264	78.1	F	#95	235
Village Parkway/Stafford Plaza Drive	EB Thru		32.9	C	593	527	37	E	706	594
Signalized	EB Right	265	17.5	B	m37	265	20.6	C	19	265
	EB Approach		*32.1*	*C*	--	--	*36.0*	*E*	--	--
	WB Left (2)	415	65.0	E	#177	264	96.6	F	#259	295
	WB Thru		19.2	B	353	397	9.3	A	116	388
	WB Right	450	9.8	A	0	21	10.1	B	m0	24
	WB Approach		*29.5*	*C*	--	--	*27.4*	*D*	--	--
	NB Left	225	61.8	E	102	118	81.5	F	#214	184
	NB Left-Thru		61.5	E	104	160	81.2	F	#217	212
	NB Right (2)	500	44.8	D	51	84	48.0	E	74	153
	NB Approach		*51.0*	*D*	--	--	*63.4*	*F*	--	--
	SB Left (2)	250	60.6	E	41	79	69.6	F	34	75
	SB Thru		60.7	*E*	45	63	71.7	F	55	78
	SB Right	250	53.2	D	0	65	62.3	F	0	114
	SB Approach		*57.5*	*E*	--	--	*65.7*	*F*	--	--
	Overall		**34.2**	**C**	**--**	**--**	**36.5**	**D**	**--**	**--**
2.. Truslow Road (E-W) at	EB Left-Thru		0.1	A	0	3	0.1	A	0	13
Summer Breeze Lane (S)	*EB Approach*		*0.1*	*A*	--	--	*0.1*	*A*	--	--
Unsignalized	WB Thru-Right		0.0	A	0	0	0.0	A	0	0
	WB Approach		*0.0*	*A*	--	--	*0.0*	*A*	--	--
	SB Left-Right		9.6	A	2	46	12.1	B	3	30
	SB Approach		*9.6*	*A*	--	--	*12.1*	*B*	--	--



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2027 Background Volumes
Stafford County High School #6

Figure 4-1

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5 TRIP GENERATION

Site traffic for the proposed Stafford County High School #6 development was estimated based on the site characteristics and subsequently distributed to the surrounding roadway network.

5.1 SITE TRIP GENERATION

The proposed development will be a 2,150-student high school. Stafford County Public Schools intends to pursue construction of the site within the next 5 years and the school will be operational by 2027.

To evaluate the impacts of the traffic generated by the proposed development, analyses were completed using the weekday AM and PM peak hour of the generator. This is based on the Stafford County Public Schools schedule to start high schools at 9:35 AM and end at 3:35 PM, which results in traffic volumes at existing intersections that do not coincide with the adjacent roadway peak hour.

Trip generation was completed using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th edition*. As indicated in Table 5-1, on a typical weekday, the assumed land use listed above are anticipated to generate approximately 4,171 daily trips, 936 AM peak hour trips, and 601 PM peak hour trips.

Table 5-1: Trip Generation Summary

LAND USE	ITE CODE	AMOUNT	UNITS	WEEKDAY						
				ADT	SCHOOL AM PEAK HOUR			SCHOOL PM PEAK HOUR		
					IN	OUT	TOTAL	IN	OUT	TOTAL
High School	525	2,150	Students	4,171	636	300	936	192	409	601

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 11th Edition (2021)

5.1 TRIP DISTRIBUTIONS

The distribution of external trips generated by the high school was estimated based on the existing travel patterns, the nature of the use, the 2021 traffic volumes, the expected draw area of the proposed high school, and local knowledge.

The following global distributions were assumed:

- 30% will enter/exit the site to/from the east via US Route 17
- 20% will enter/exit the site to/from the west via US Route 17
- 25% will enter/exit the site to/from the east via Truslow Road
- 15% will enter/exit the site to/from the south via Village Parkway/Stafford Plaza Drive
- 10% will enter/exit the site to/from the north via Poplar Road to Truslow Road

These distributions are shown on Figure 5-1 and Figure 5-2 shows the intersection trip distributions.

5.2 Traffic Assignment

The trip distribution percentages for the external trips from Figures 5-1 and 5-2 were applied to the trip generation table (Table 5-1) to distribute the external trips to the surrounding roadway network. The resulting site generated external trips are shown on Figure 5-3 for the proposed high school.

To generate the 2027 total future traffic volumes, the external site trips shown on Figure 5-3 were added to the background 2027 traffic volumes shown on Figure 4-1. The resulting 2027 total future traffic volumes are shown on Figure 5-4.

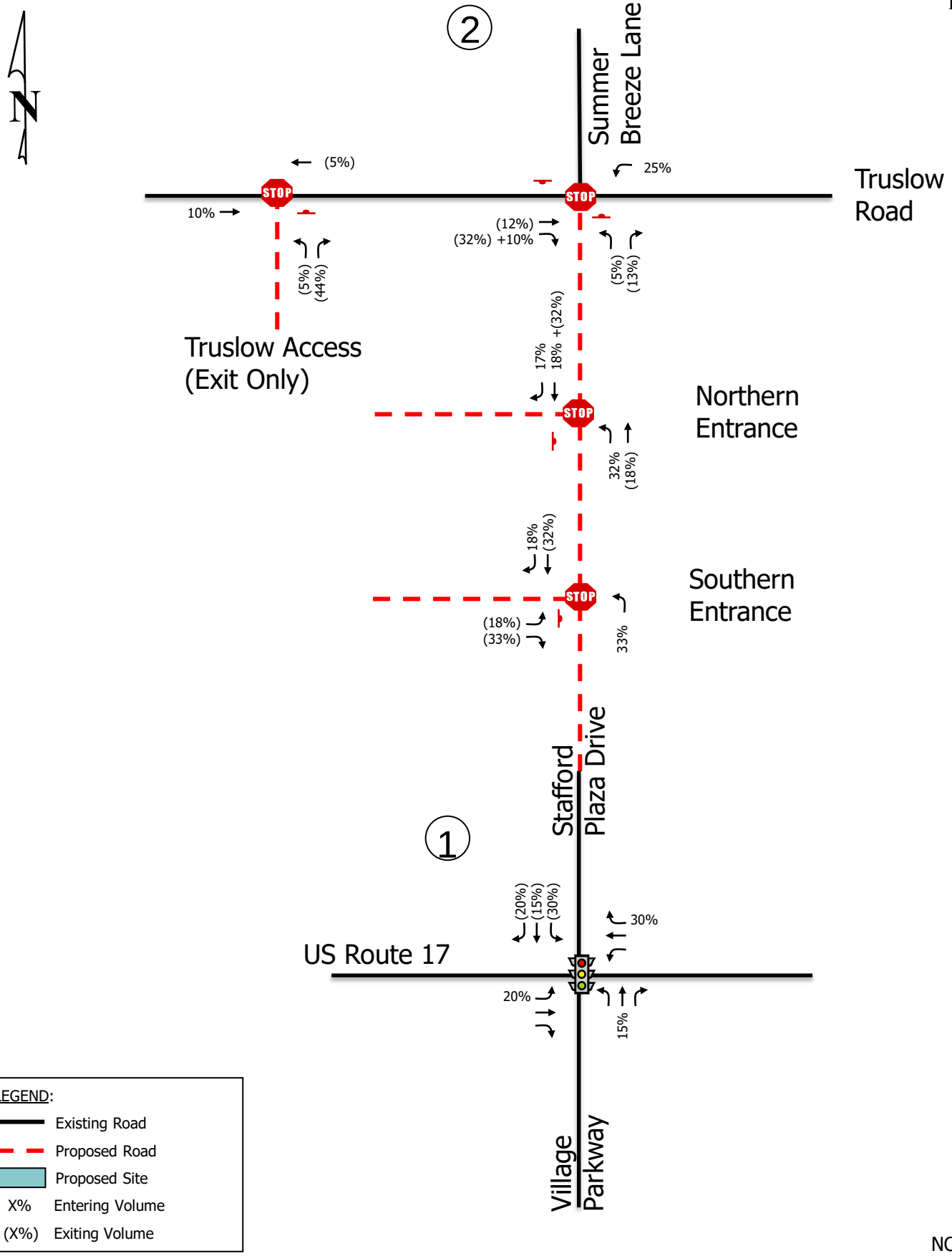
5.3 Bus Traffic

The proposed layout as shown in Figure 2-2 shows the bus loop immediately to the south of the Northern Entrance. It was assumed that the 30 buses that service the site would follow the established distributions and the anticipated bus trips can be found on Figure 5-3. The total future volumes with buses can be found on Figure 5-4.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Global Trip Distributions
Stafford County High School #6

Figure
5-1

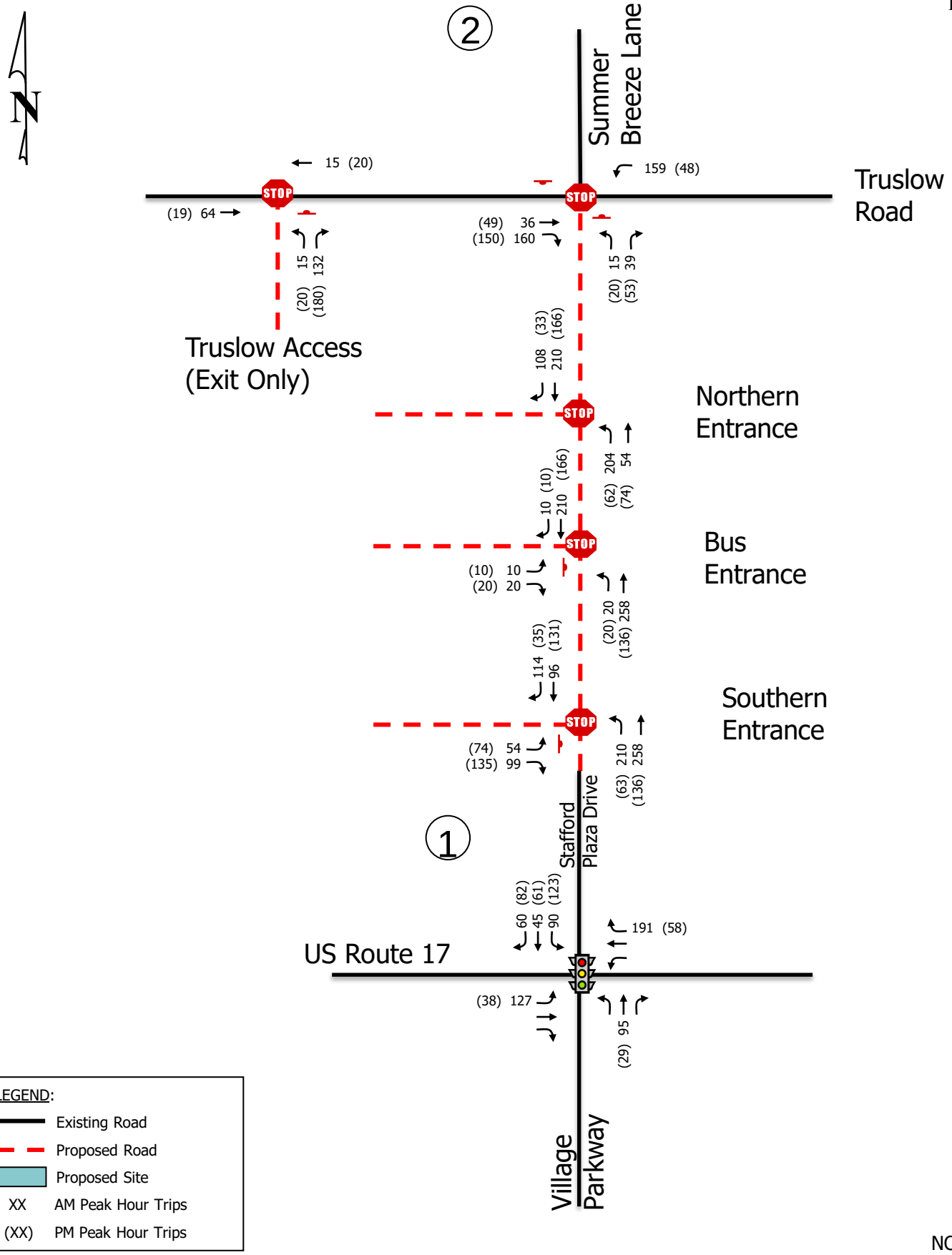


NOT TO SCALE

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Intersection Trip Distributions
Stafford County High School #6

Figure 5-2

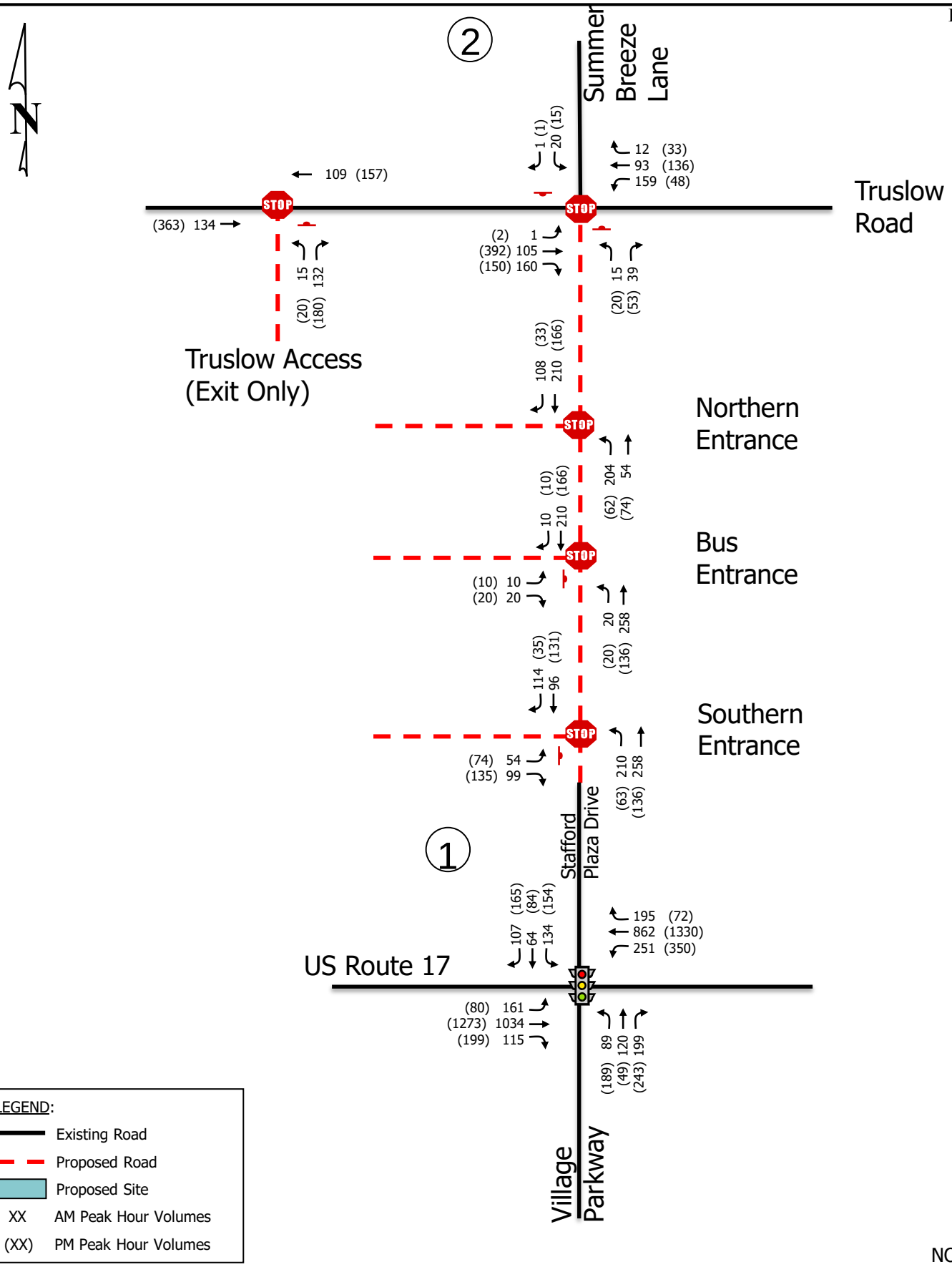


NOT TO SCALE

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Site Generated Trips (with Bus Entrance)
Stafford County High School #6

Figure 5-3



NOT TO SCALE

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

2027 Total Future Volumes
Stafford County High School #6

Figure 5-4

6 TURN LANE WARRANT ANALYSIS

In addition to the capacity analysis for the future site entrances, turn lane warrant analyses were performed for the following intersections/movements:

- Truslow Road and Summer Breeze Lane: WB right and EB left;
- Northern Entrance and Stafford Plaza Drive Extension: NB left and SB right;
- Southern Entrance and Stafford Plaza Drive Extension: NB left and DB right; and
- Bus Entrance and Stafford Plaza Drive Extension: NB left and SB right.

The turn lane warrant analyses were completed using the appropriate turn lane nomographs from Appendix F of the VDOT *Road Design Manual*. The results indicate the following:

- Truslow Road and Summer Breeze Lane: both a WB right turn lane and EB left turn lane are warranted;
- Northern Entrance and Stafford Plaza Drive Extension: both a NB left turn lane and a SB right turn lane are warranted;
- Southern Entrance and Stafford Plaza Drive Extension: both a NB left turn lane and SB right turn lane are warranted; and
- Bus Entrance and Stafford Plaza Drive Extension: no turn lanes are warranted.

Copies of the nomographs can be found in Figures 6-1 through 6-10 and the proposed future geometry can be found in Figure 6-11.

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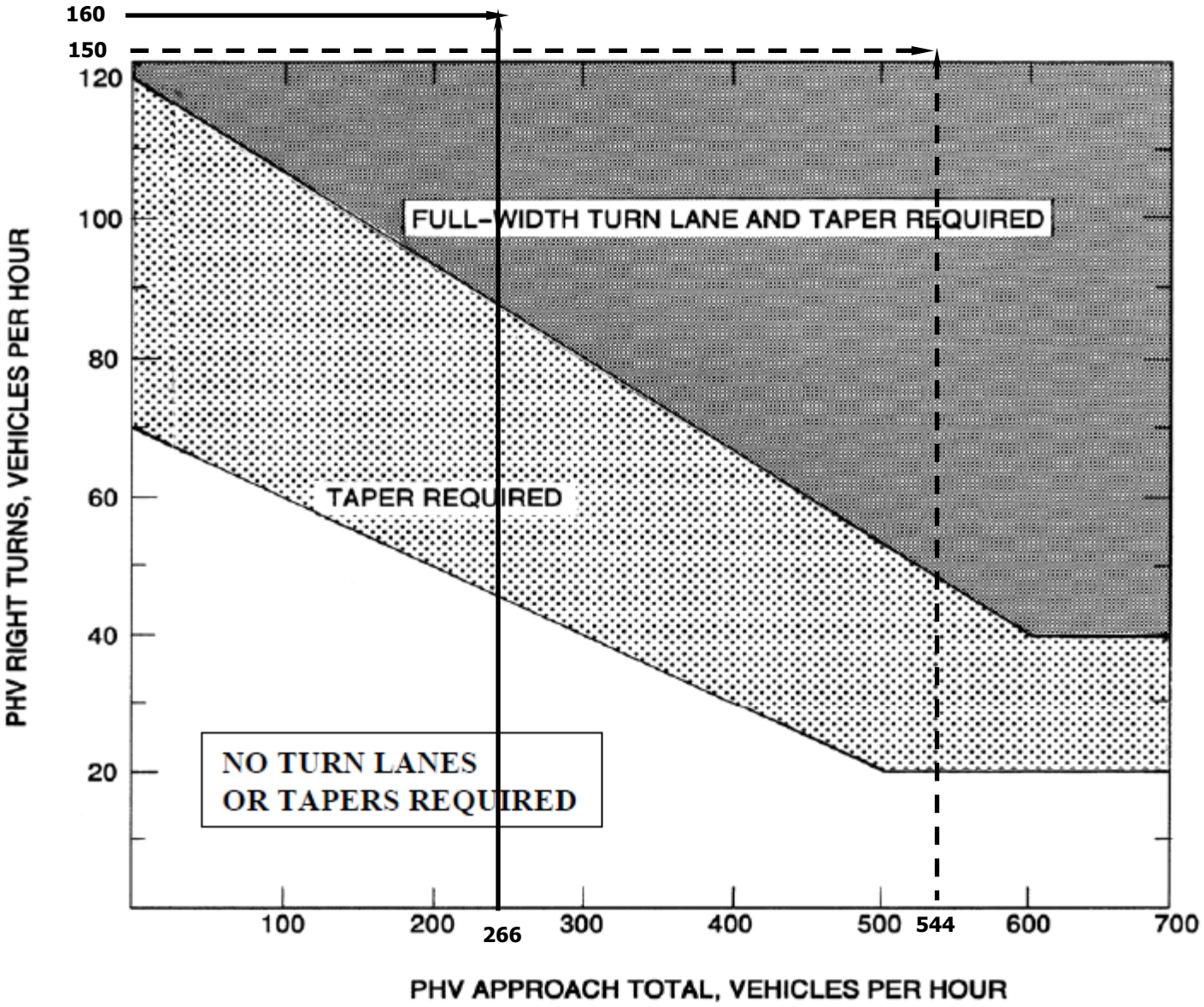
GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)
FIGURE 3-26 VDOT ROAD DESIGN MANUAL APPENDIX F



RIGHT TURN LANE AND TAPER WARRANTED

LEGEND

———	AM Peak Hour
- - - -	PM Peak Hour
30*	Adjusted Right Turns

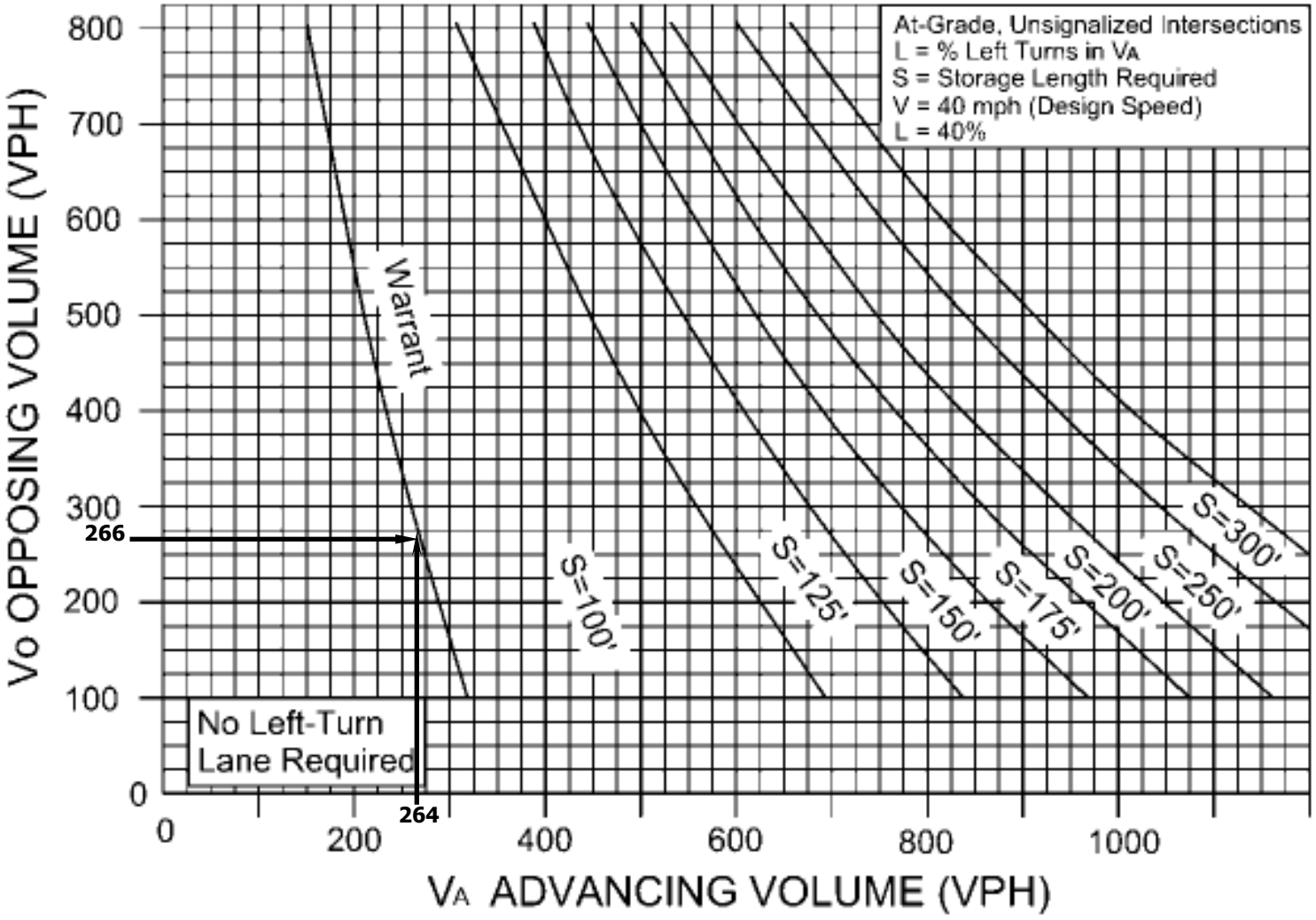
Adjustment for Right Turns:
For posted speeds ≤ 45 mph, PHV right turns > 40, and PHV total <300.
Adjusted right turns = PHV right turns - 20.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Right-Turn Lane Warrant
2027 Total Future Volumes
EB Right on Truslow Rd at Summer Breeze Ln

Figure
6-1

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-10 VDOT ROAD DESIGN MANUAL APPENDIX F



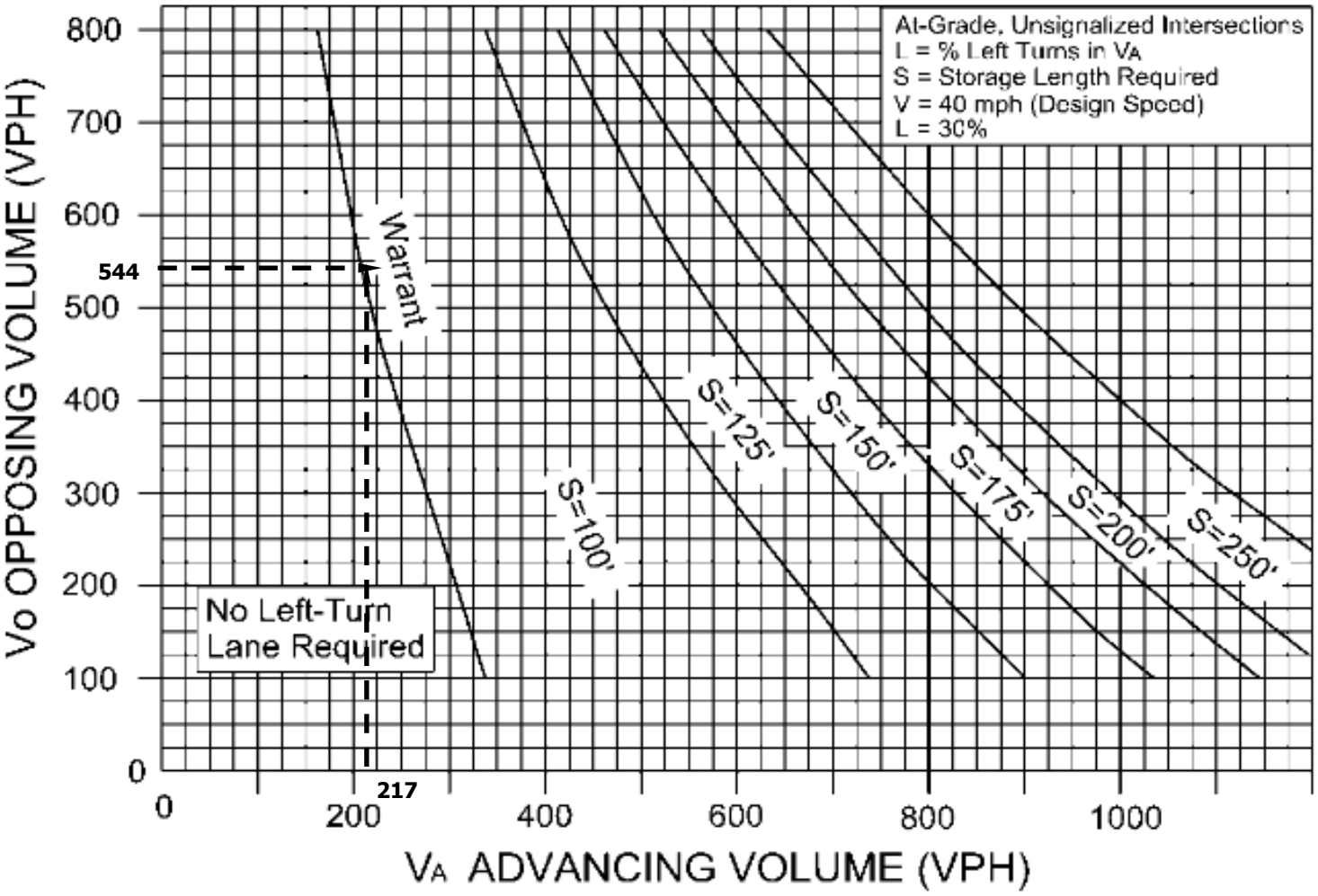
LEGEND

AM Peak Hour

LEFT TURN LANE WARRANTED

TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.	Left-Turn Lane Warrant 2027 Total Future Volumes – AM Peak Hour WB Left on Truslow Rd at Summer Breeze Ln	Figure 6-2

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-9 VDOT ROAD DESIGN MANUAL APPENDIX F

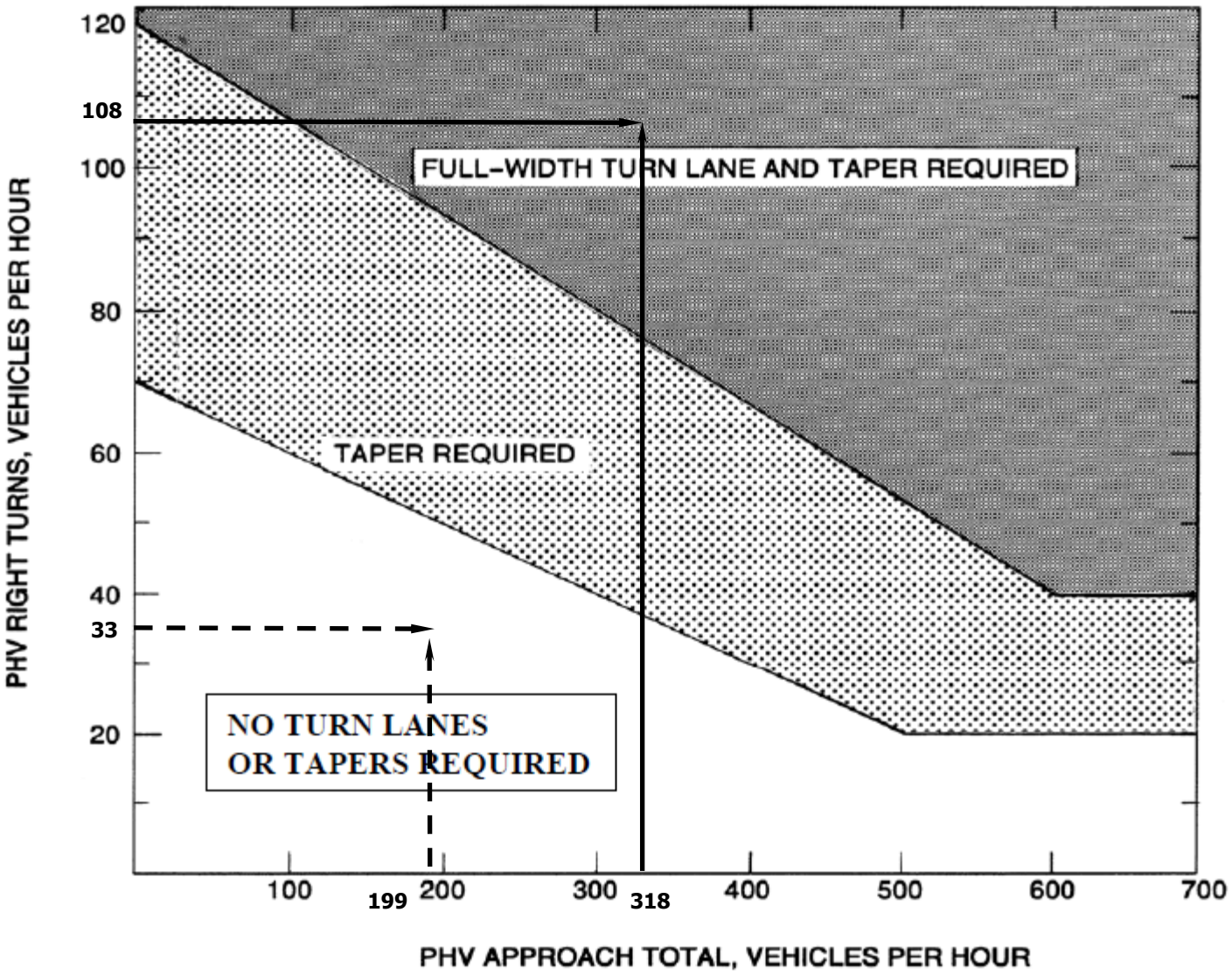


LEGEND
- - - - PM Peak Hour

LEFT TURN LANE WARRANTED

TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.	Left-Turn Lane Warrant 2027 Total Future Volumes – PM Peak Hour WB Left on Truslow Rd at Summer Breeze Ln	Figure 6-3

GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)
FIGURE 3-26 VDOT ROAD DESIGN MANUAL APPENDIX F



RIGHT TURN LANE AND TAPER WARRANTED

LEGEND

———	AM Peak Hour
- - - -	PM Peak Hour
30*	Adjusted Right Turns

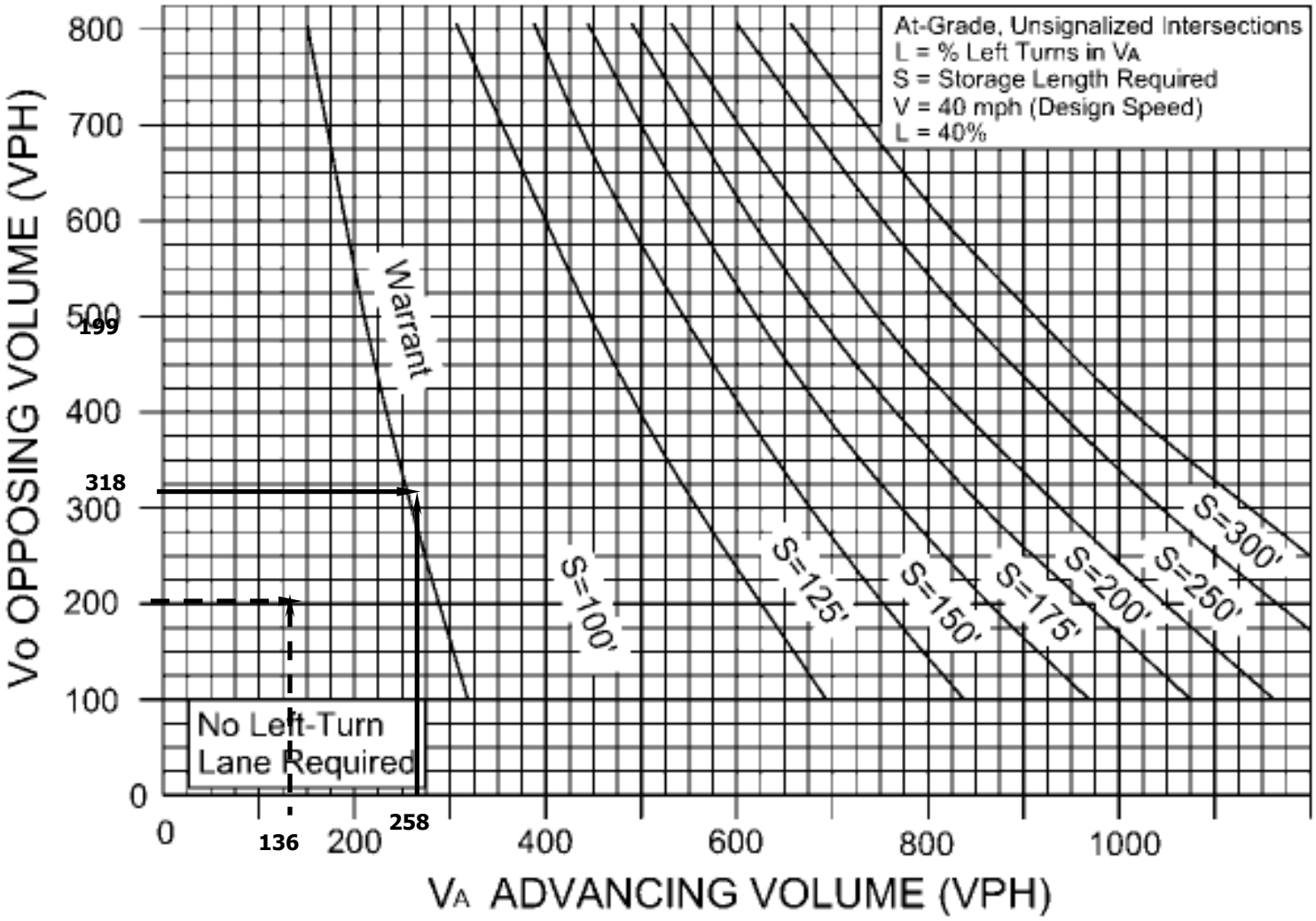
Adjustment for Right Turns:
For posted speeds ≤ 45 mph, PHV right turns > 40, and PHV total <300.
Adjusted right turns = PHV right turns - 20.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Right-Turn Lane Warrant
2027 Total Future Volumes
SB Right at Northern Entrance

Figure
6-4

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-10 VDOT ROAD DESIGN MANUAL APPENDIX F



LEGEND
AM Peak Hour
PM Peak Hour

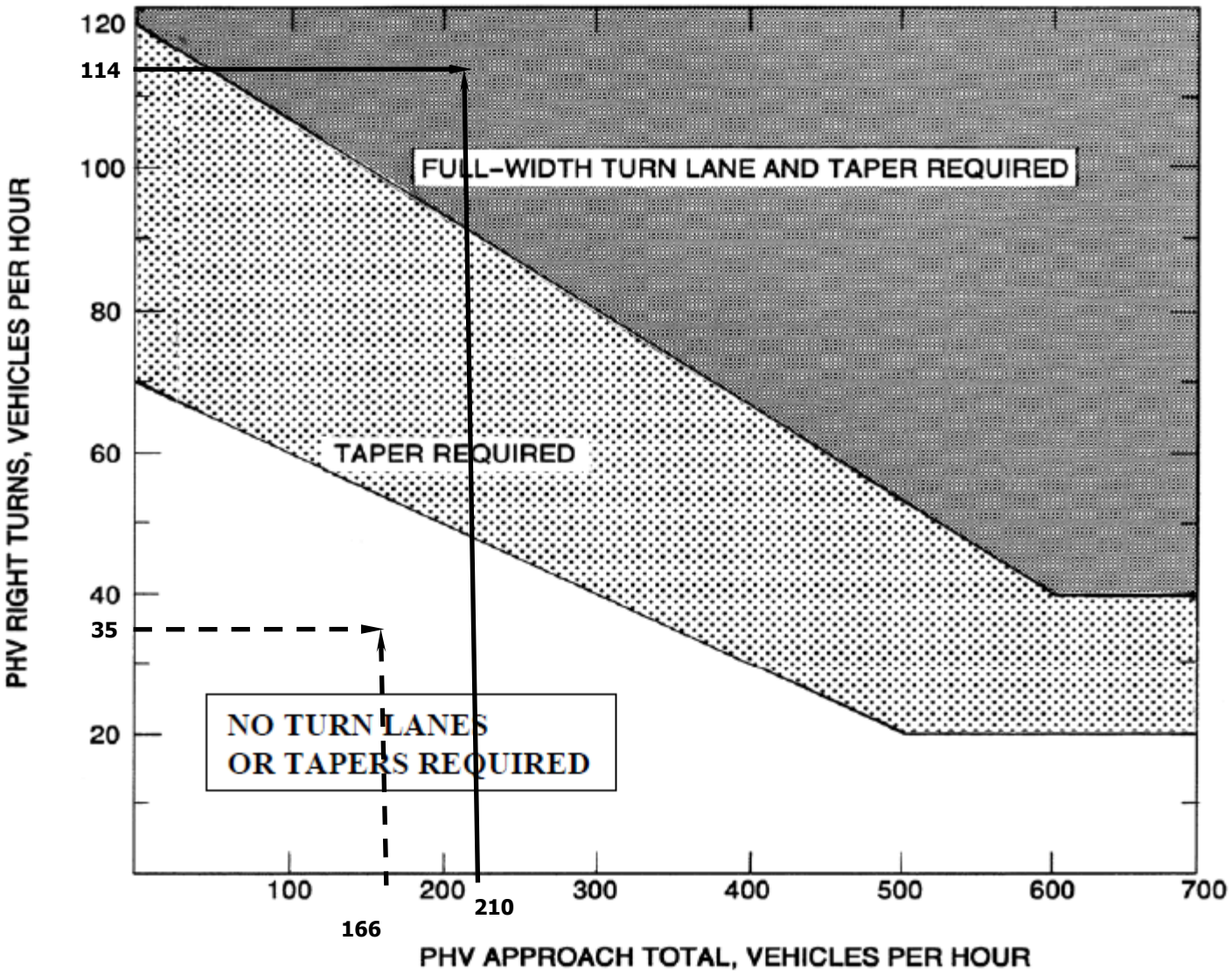
LEFT TURN LANE WARRANTED

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Left-Turn Lane Warrant
2027 Total Future Volumes
NB Left at Northern Entrance

Figure 6-5

GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)
FIGURE 3-26 VDOT ROAD DESIGN MANUAL APPENDIX F



RIGHT TURN LANE AND TAPER WARRANTED

LEGEND

———	AM Peak Hour
- - - -	PM Peak Hour
30*	Adjusted Right Turns

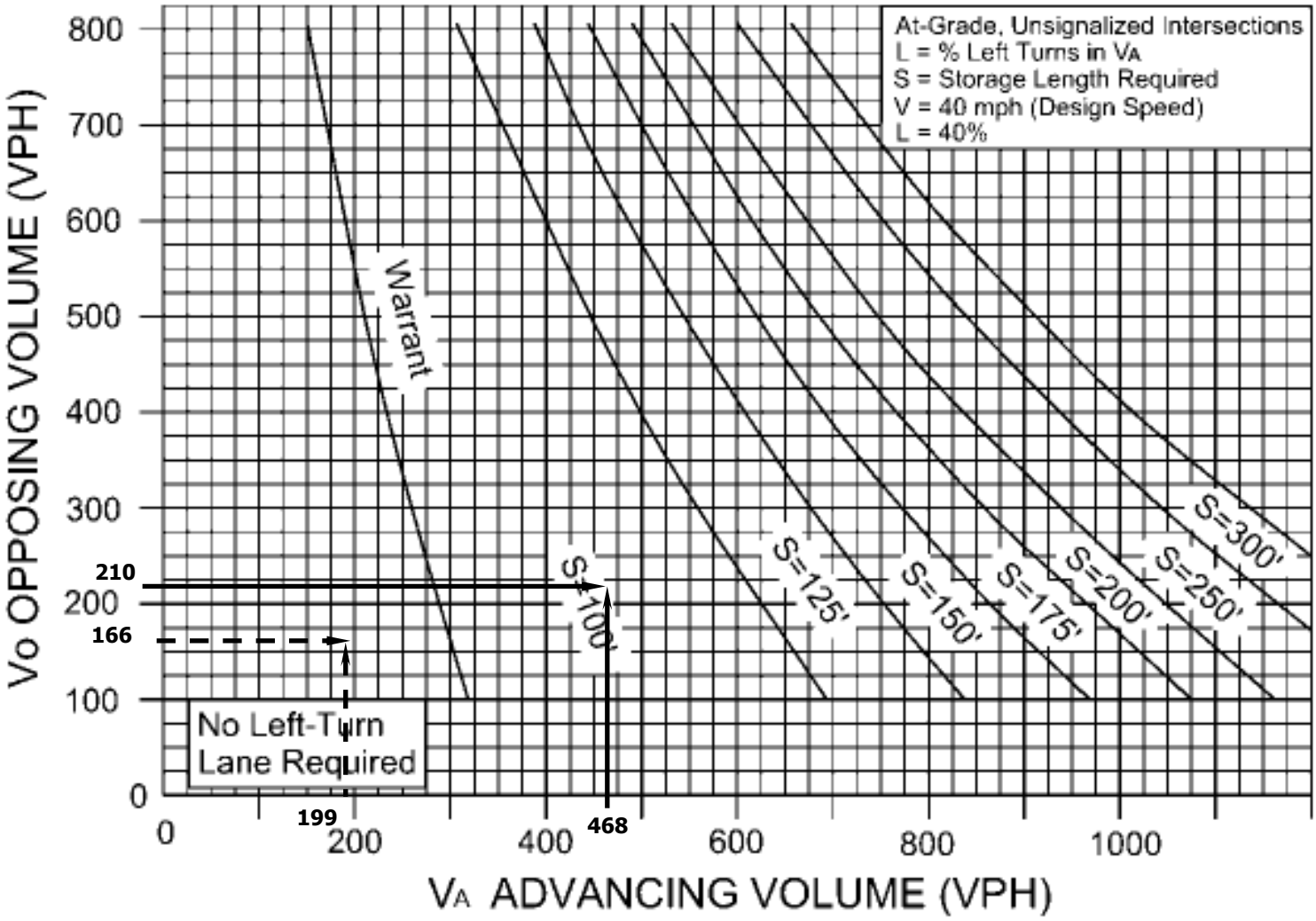
Adjustment for Right Turns:
For posted speeds ≤ 45 mph, PHV right turns > 40, and PHV total <300.
Adjusted right turns = PHV right turns - 20.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Right-Turn Lane Warrant
2027 Total Future Volumes
SB Right at Southern Entrance

Figure
6-6

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-10 VDOT ROAD DESIGN MANUAL APPENDIX F

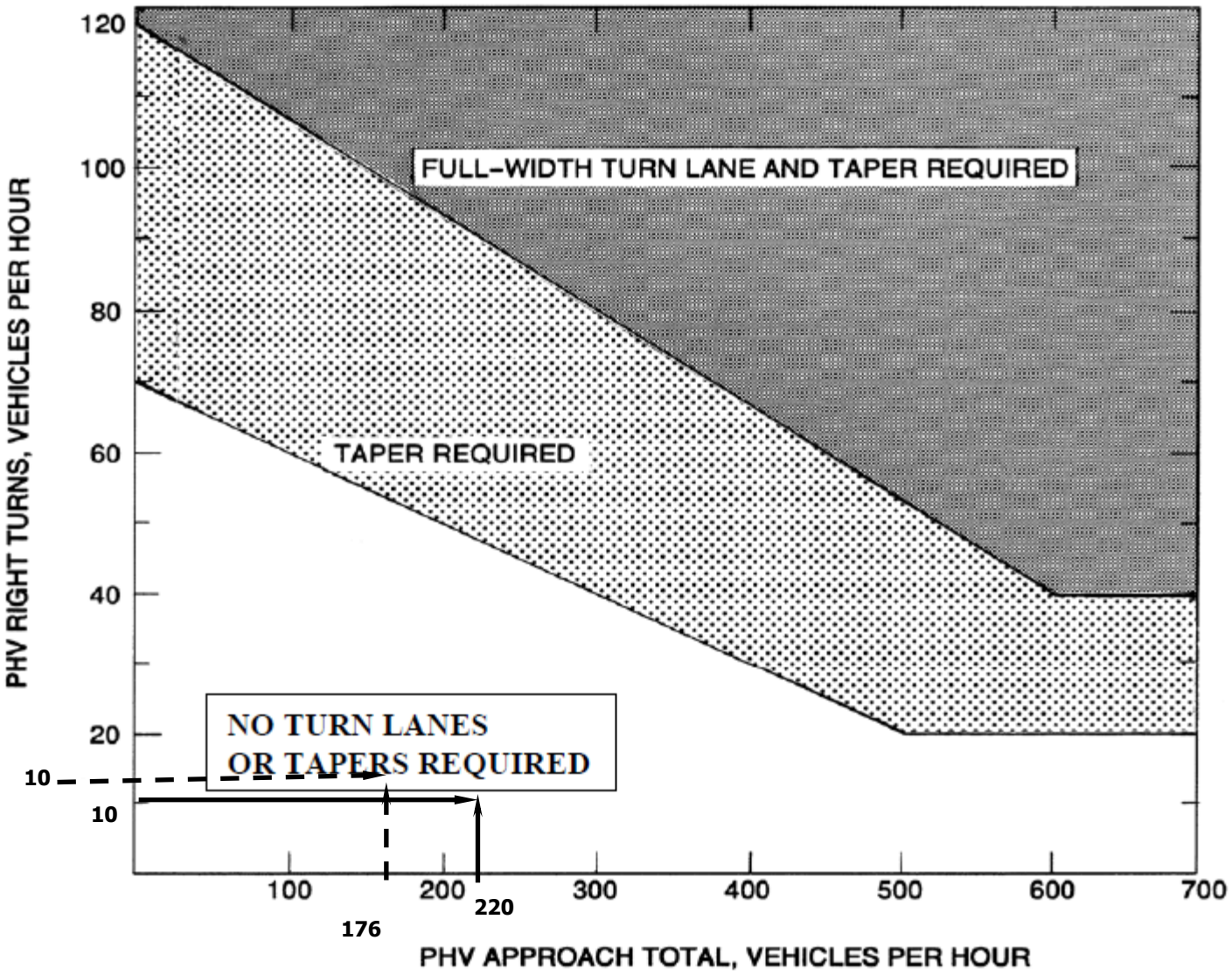


LEGEND
AM Peak Hour
PM Peak Hour

LEFT TURN LANE WARRANTED

TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.	Left-Turn Lane Warrant 2027 Total Future Volumes NB Left at Southern Entrance	Figure 6-7

GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)
FIGURE 3-26 VDOT ROAD DESIGN MANUAL APPENDIX F



NO TURN LANE OR TAPER REQUIRED

LEGEND

———	AM Peak Hour
- - - -	PM Peak Hour
30*	Adjusted Right Turns

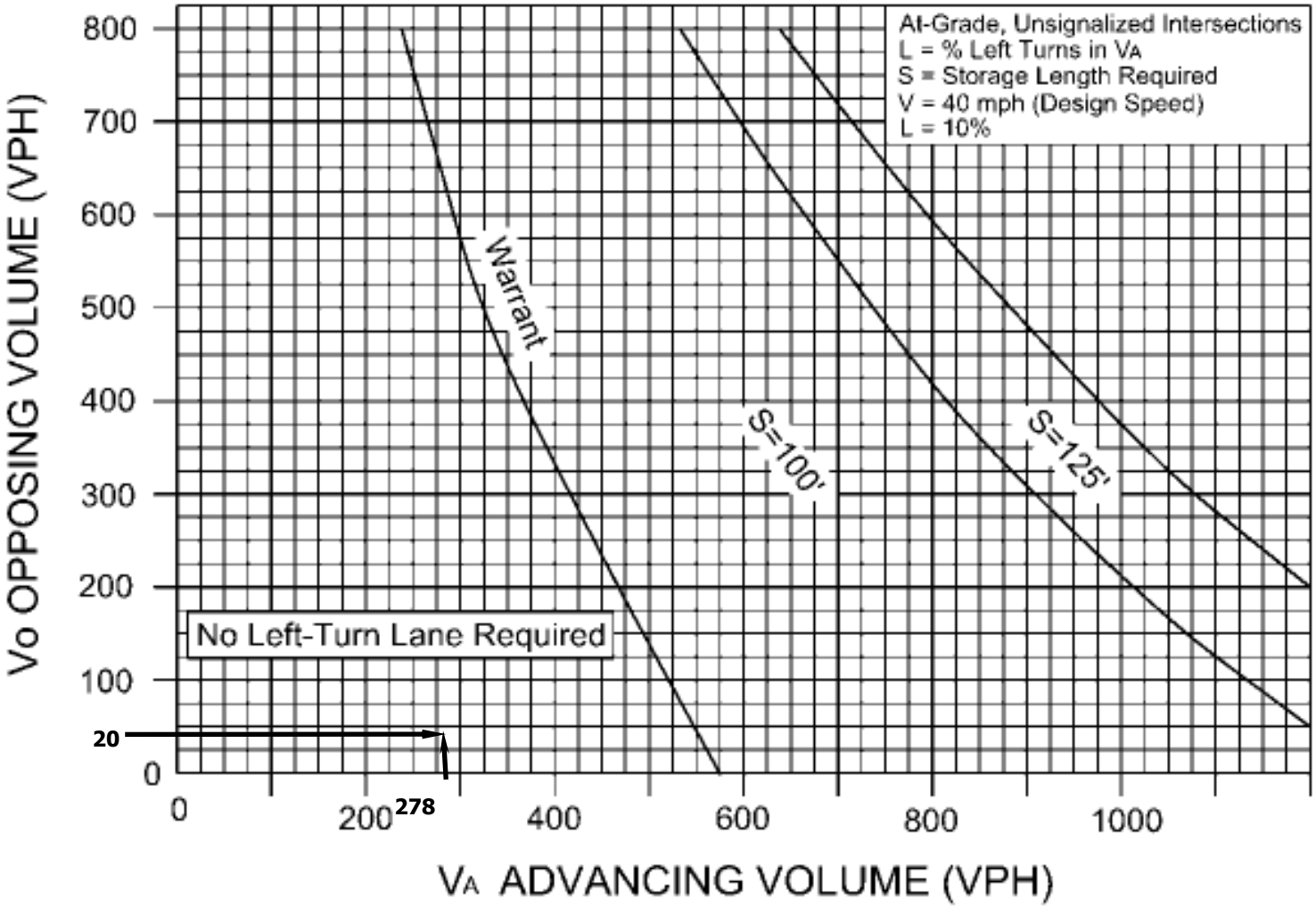
Adjustment for Right Turns:
For posted speeds ≤ 45 mph, PHV right turns > 40, and PHV total <300.
Adjusted right turns = PHV right turns - 20.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Right-Turn Lane Warrant
2027 Total Future Volumes
SB Right at Bus Entrance

Figure
6-8

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-6 VDOT ROAD DESIGN MANUAL APPENDIX F



LEGEND
AM Peak Hour

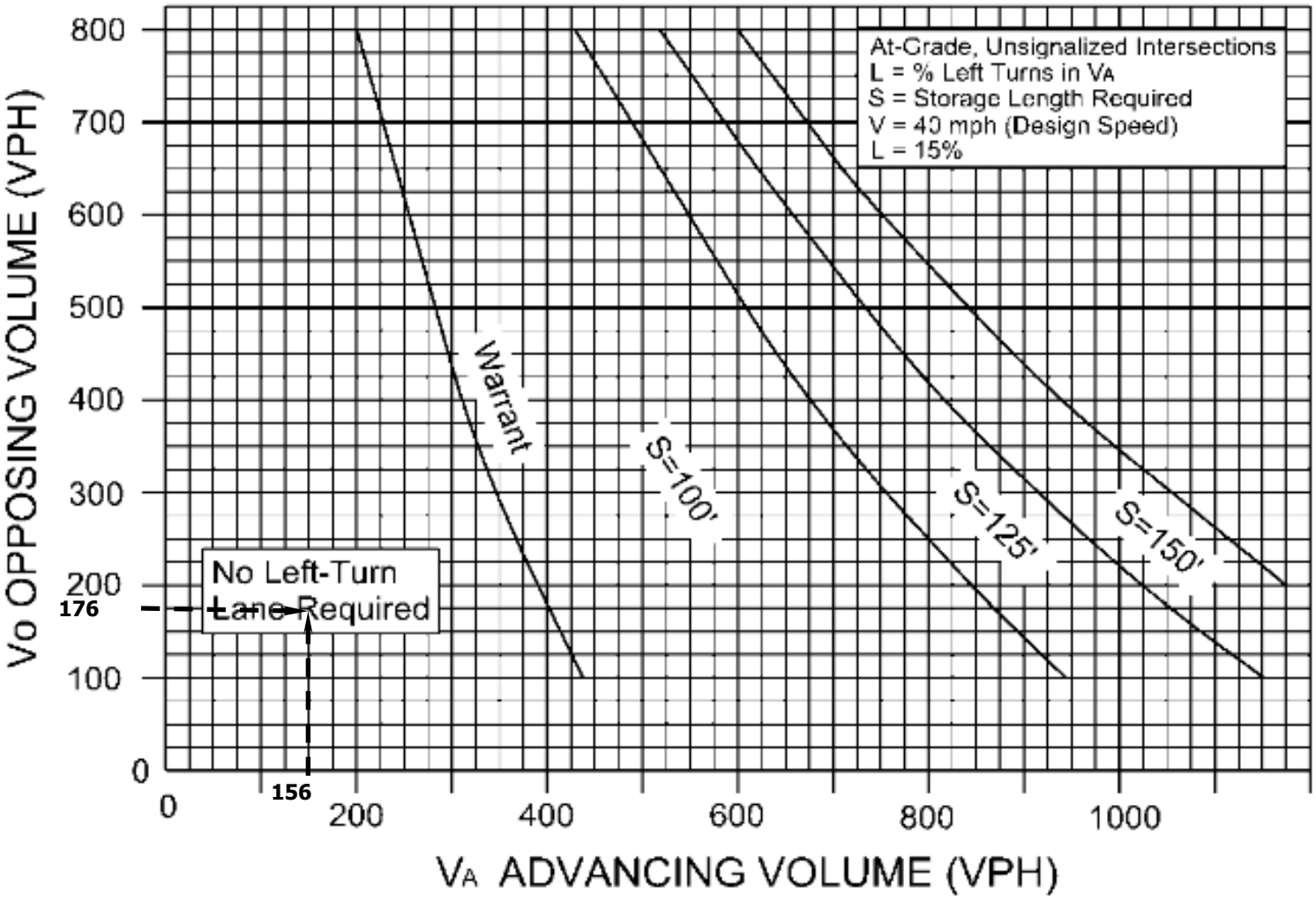
NO LEFT TURN LANE REQUIRED

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Left-Turn Lane Warrant
2027 Total Future Volumes
NB Left at Bus Entrance

Figure
6-9

WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS (40 MPH) FIGURE 3-7 VDOT ROAD DESIGN MANUAL APPENDIX F



LEGEND

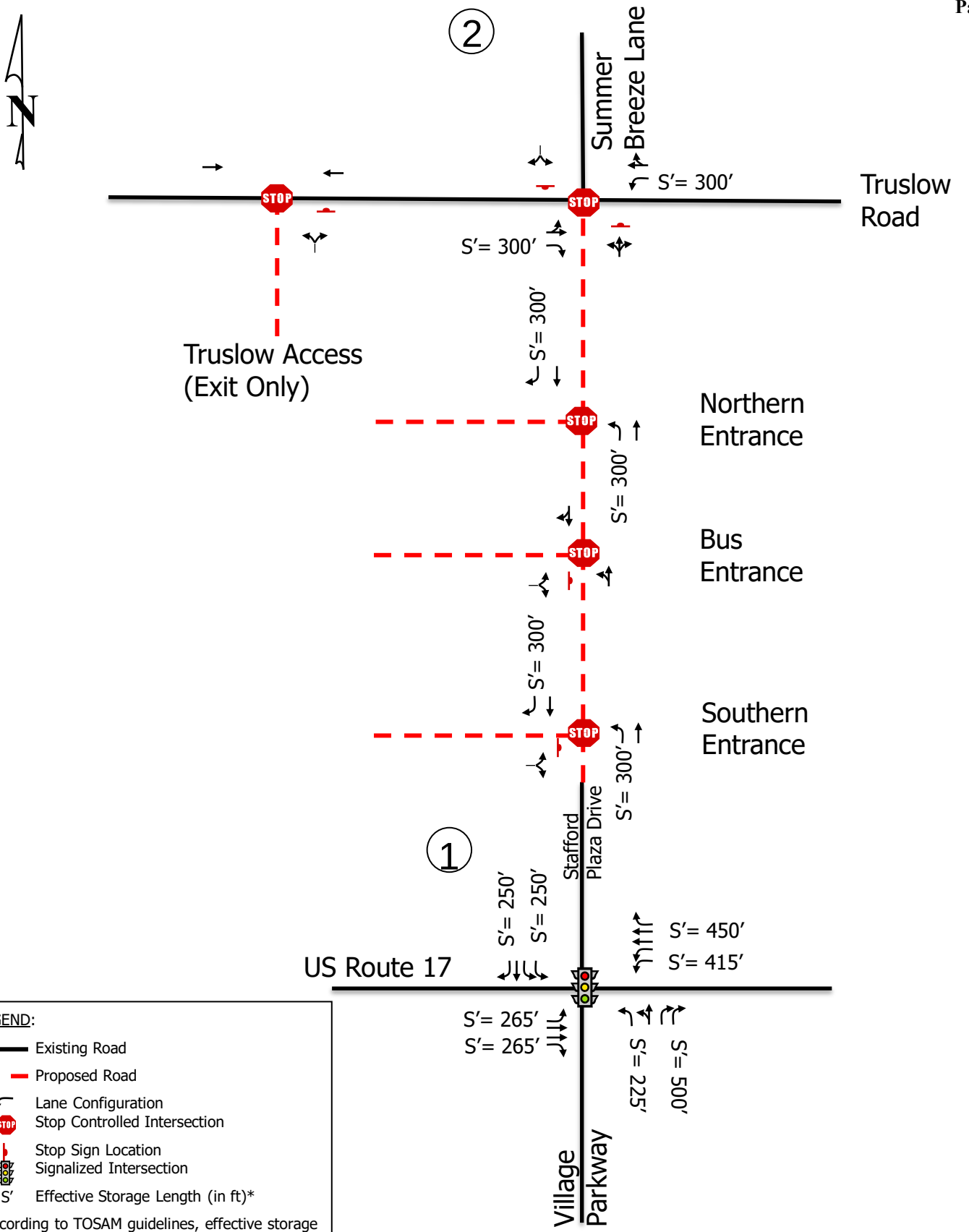
- - - - PM Peak Hour

NO LEFT TURN LANE REQUIRED

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Left-Turn Lane Warrant
2027 Total Future Volumes
NB Left at Bus Entrance

Figure 6-10



NOT TO SCALE

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

2027 Proposed Future Geometry
Stafford County High School #6

Figure 6-11

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7 ANALYSIS OF FUTURE CONDITIONS WITH DEVELOPMENT

To complete the analysis of 2027 future conditions (with the proposed development), the estimated site trips were added to the background 2027 traffic volumes. The projected volumes were then used to complete the capacity analysis.

7.1 CAPACITY ANALYSES

Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. Levels of service (LOS) are determined for each part of the roadway network. The general standard for the overall intersection is LOS D representing acceptable results and the standard for individual traffic movements is LOS E. For detailed information about level of service definitions and criteria for unsignalized and signalized intersections, see Chapter 3 on capacity analyses.

The two (2) existing intersections used in the existing 2021 and background 2027 analysis above were analyzed using the 2027 total future volumes shown on Figure 5-4 and the future geometry shown in Figure 6-11. These intersections, both signalized and unsignalized, were analyzed using SYNCHRO Version 10 based on 2000 HCM methodologies using the assumptions listed in Chapter 3.

It should be noted that all references to AM and PM peak hour in this report refer to the school AM and the school PM peak hours, respectively, and not the overall roadway AM and PM peak hours.

For all the future analyses, the minimum peak hour factor is the existing PHF or 0.92, whichever is higher, with the exception of the following movements that directly correlate to traffic entering the school site and were analyzed with a PHF of 0.50 to simulate the condensed school peak:

- Movements exiting the Truslow Road Access at Intersection 3;
- All movements at the Northern Entrance/Intersection 4;
- All movements at the Southern Entrance/Intersection 5; and
- All movements entering/exiting the Bus Entrance/Intersection 6.

7.2 2027 Total Future Traffic Volumes Analysis – SYNCHRO

Table 7-1 summarizes the 2027 total future intersection LOS, delay, 95th percentile queue lengths (Synchro), and maximum queue lengths (SimTraffic) based on the proposed intersection geometry and 2027 total future traffic volumes shown on Figure 5-4 and the geometry shown on Figure 6-11. The corresponding SYNCHRO and SimTraffic reports are included in Appendix D. Note that the intersection numbers shown on the LOS, delay, and queue length summary tables correspond with the intersection numbers used in the SYNCHRO models and report figures.

The proposed intersection geometry includes the following improvements:

- A 2nd left turn lane on EB US Route 17 at Village Parkway/Stafford Plaza Drive with storage and taper lengths to meet VDOT minimums of 200 feet by 200 feet.
- The extension of Stafford Plaza Drive approximately 2,600 north from its current terminus to the intersection of Truslow Road and Summer Breeze Lane.
- Optimized signal timings for the intersection of US Route 17 at Village Parkway/Stafford Plaza Drive to account for the revised geometry and additional traffic volumes. It is understood that US Route 17 is a coordinated corridor and that the entire corridor will need to be reviewed after installation of the proposed school development.
- A roundabout at the intersection of Truslow Road at Summer Breeze Lane/Stafford Plaza Drive.

The signalized intersection of Village Parkway/Stafford Plaza Drive and US Route 17 continues to operate at an overall LOS C in the AM peak hour and worsens slightly to operate at LOS D during the PM peak hour. The eastbound approach worsens to operate at LOS D in the AM peak and at LOS F in the PM peak. The westbound approach worsens to operate at LOS D in the AM peak and at LOS E in the PM peak. The northbound approach continues to operate at LOS E in the AM peak and at LOS F in the PM peak. The southbound approach continues to operate at LOS E in the AM peak and at LOS F in the PM peak. All queues are shown to fit within the existing storage, however, the eastbound approach in the AM and PM peaks continue to have through movement queues that may limit access to the turn lane.

If left as an unsignalized, stop controlled intersection, Truslow Road and Summer Breeze Lane/Stafford Plaza Drive the eastbound and westbound approaches operate at LOS A in both the AM and PM peaks. The northbound approach operates at LOS C in the AM peak and at LOS B in the PM peak. The southbound approach operates at LOS D in the AM peak and at LOS C in the PM peak. The completed roundabout analysis using SIDRA is shown in Section 7.3 of this report.

At the intersection of the Truslow Road Access and Truslow Road the northbound approach operates at LOS B in both the AM and PM peaks.

At the proposed Northern Entrance, the northbound and southbound approaches operate at LOS A in both the AM and PM peaks.

At the proposed Southern Entrance, the eastbound approach operates at LOS F in the AM peak and LOS C in the PM peak. The northbound approach operates at LOS Ain both the AM and PM peaks.

At the proposed Bus Entrance, the eastbound approach operates at LOS B in the AM and PM peaks and the northbound approach operates at LOS A in both the AM and PM peaks.

Overall, most operational, queuing, and capacity deficiencies observed under existing/background conditions will continue under the 2027 total conditions. The individual movements and approaches that are experiencing queuing issues will continue do so.

The addition of the 2nd eastbound left turn lane on US Route 17 at Village Parkway/Stafford Plaza Drive, as well as the optimized signal timings, will increase the capacity of the intersection and help accommodate the additional site traffic.

Table 7-1: Intersection Level of Service, Delay, and Queue Summary
2027 Total Future Traffic Volumes – Synchro

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	SYNCHRO 95th Percentile Queue Length (ft)	SimTraffic Maximum Queue Length (ft)
1. US Route 17 (E-W) at	EB Left	265	83.6	F	103	300	68.2	F	63	300
Village Parkway/Stafford Plaza Drive	EB Thru		49.2	D	598	615	53.3	F	#806	691
Signalized	EB Right	265	24.5	C	m33	265	25.7	D	60	265
	EB Approach		*54.3*	*D*	--	--	*51.4*	*F*	--	--
	WB Left (2)	415	86.5	F	#201	326	101.7	F	#274	406
	WB Thru		39.8	D	447	512	22.9	C	565	621
	WB Right	450	22.3	C	66	361	3.7	A	1	411
	WB Approach		*43.5*	*D*	--	--	*36.6*	*E*	--	--
	NB Left	225	51.0	D	127	223	107.7	F	#289	212
	NB Left-Thru		95.1	F	166	399	97.7	F	125	248
	NB Right (2)	500	39.6	D	67	164	49.2	E	106	145
	NB Approach		*66.5*	*E*	--	--	*78.0*	*F*	--	--
	SB Left (2)	250	81.3	F	87	158	79.3	F	109	239
	SB Thru		74.5	*E*	94	160	105.0	F	131	339
	SB Right	250	45.2	D	4	139	81.1	F	91	256
	SB Approach		*67.2*	*E*	--	--	*85.4*	*F*	--	--
	Overall		**53.7**	**D**	**--**	**--**	**54.2**	**D**	**--**	**--**
2. Truslow Road (E-W) at	EB Left-Thru		0.1	A	0	3	0.0	A	0	2
Summer Breeze Lane /Site Entrance	EB Right	300	0.0	A	0	30	0.0	A	0	18
(N-S)	*EB Approach*		*0.0*	*A*	--	--	*0.0*	*A*	--	--
Unsignalized	WB Left	300	9.5	A	29	93	9.6	A	9	54
	WB Thru-Right		0.0	A	0	0	0.0	A	0	0
	WB Approach		*7.0*	*A*	--	--	*3.3*	*A*	--	--
	NB L-T-R		14.4	B	21	70	15.8	B	32	71
	NB Approach		*14.4*	*B*	--	--	*15.8*	*B*	--	--
	SB L-T-R		28.0	D	11	56	23.4	C	6	37
	SB Approach		*28.0*	*D*	--	--	*23.4*	*C*	--	--
3. Truslow Road (E-W) at	EB Thru		0.0	A	0	0	0.0	A	0	0
Truslow Access (Exit Only) (N)	*EB Approach*		*0.0*	*A*	--	--	*0.0*	*A*	--	--
Unsignalized	WB Thru		0.0	A	0	0	0.0	A	0	0
	WB Approach		*0.0*	*A*	--	--	*0.0*	*A*	--	--
	NB Left-Right		11.1	B	37	81	20.0	B	112	146
	NB Approach		*11.1*	*B*	--	--	*20.0*	*B*	--	--
4. Proposed Road (N-S) at	NB Left	300	11.6	B	55	147	8.5	A	9	50
Northern Entrance (E)	NB Thru		0.0	A	0	0	0.0	A	0	0
Unsignalized	*NB Approach*		*9.2*	*A*	--	--	*3.9*	*A*	--	--
	SB Thru		0.0	A	0	8	0.0	A	0	0
	SB Right	300	0.0	A	0	32	0.0	A	0	4
	SB Approach		*0.0*	*A*	--	--	*0.0*	*A*	--	--
5. Proposed Road (N-S) at	EB Left-Right		335.0	F	500	489	34.6	C	192	223
Southern Entrance (E)	*EB Approach*		*335.0*	*F*	--	--	*34.6*	*C*	--	--
Unsignalized	NB Left	300	10.0	A	43	153	8.3	A	9	64
	NB Thru		0.0	A	0	0	0.0	A	0	0
	NB Approach		*4.5*	*A*	--	--	*2.6*	*A*	--	--
	SB Thru		0.0	A	0	6	0.0	A	0	2
	SB Right	300	0.0	A	0	41	0.0	A	0	2
	SB Approach		*0.0*	*A*	--	--	*0.0*	*A*	--	--
6. Proposed Road (N-S) at	EB Left-Right		11.2	B	8	54	10.8	B	7	44
Bus Entrance (E)	*EB Approach*		*11.2*	*B*	--	--	*10.8*	*B*	--	--
Unsignalized	NB Left-Thru		1.2	A	2	53	1.2	A	2	44
	NB Approach		*1.2*	*A*	--	--	*1.2*	*A*	--	--
	SB Thru-Right		0.0	A	0	0	0.0	A	0	0
	SB Approach		*0.0*	*A*	--	--	*0.0*	*A*	--	--

7.3 2027 Total Future Traffic Volumes Analysis – SIDRA

Based on discussions with Stafford County Public Schools, a roundabout is the preferred traffic control for the intersection of Truslow Road at Summer Breeze Lane and the proposed Stafford Plaza Drive extension. A supplemental roundabout analysis was performed using SIDRA software for a single-lane roundabout.

Table 7-2 summarizes the 2027 total future intersection LOS, delay, 95th percentile queue lengths from SIDRA based on the proposed intersection geometry and 2027 total future traffic volumes shown on Figure 5-4. The corresponding SIDRA reports are included in Appendix D. Note that the intersection numbers shown on the LOS, delay, and queue length summary.

If a single-lane roundabout is installed at the intersection of Truslow Road at Summer Breeze Lane/Stafford Plaza Drive extension, the intersection is expected to operate at an overall LOS A during both the AM and PM peak hours. All movements and approaches at the intersection will operate at LOS A during both the AM and PM peak hours. The maximum queuing experienced by any approach is approximately 137 feet or the equivalent of roughly 6 passenger vehicles. There are no queuing or operational issues noted with the installation of a roundabout at this intersection.

Table 7-2: Intersection Level of Service, Delay, and Queue Summary
2027 Total Future Traffic Volumes – SIDRA

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	SIDRA 95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	SIDRA 95th Percentile Queue Length (ft)
5. Truslow Road (E-W) at	*EB Approach*		*8.0*	*A*	70	*10.2*	*B*	137
Summer Breeze Lane /Site Entrance	*WB Approach*		*5.7*	*A*	56	*4.6*	*A*	35
(N-S)	*NB Approach*		*3.7*	*A*	12	*5.5*	*A*	24
Roundabout	*SB Approach*		*4.2*	*A*	4	*3.5*	*A*	2
	Overall		**6.4**	**A**	**--**	**8.1**	**A**	--

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8 CONCLUSIONS

Analyses were performed for the 2021 existing, the 2027 background volumes (including all background growth), and the 2027 total volumes, which includes site traffic generated by the Stafford County High School #6 development. The following represents the findings and recommendations.

8.1 PRINCIPAL FINDINGS

Generally, there are no operational issues at the existing unsignalized intersection of Truslow Road and Summer Breeze Lane. At the signalized intersection of US Route 17 and Village Parkway/Stafford Plaza Drive the minor side streets experience poor levels of service and delay, which is expected as the signals are optimized to prioritize the mainline through movements. The individual movements and approaches that are experiencing queuing issues under existing conditions will continue to witness similar conditions with background growth.

With the addition of site traffic, the operational, queuing, and capacity deficiencies observed under existing/background conditions continue, with a limited number or movements absorbing a majority of the new traffic. Overall conditions remain generally the same with a noted need for 2nd eastbound left turn late on US Route 17 at Village Parkway/Stafford Plaza Drive to accommodate site-generated traffic.

The addition of the 2nd eastbound left turn lane on US Route 17 at Village Parkway/Stafford Plaza Drive, as well as the optimized signal timings, will increase the capacity of the intersection, better accommodate traffic queues, and offset the additional site-generated traffic.

Overall, the proposed roadway extension will generate limited cut-through traffic to/from US Route 17 due to the lack of further network connectivity. The future traffic associated with the school will occur during specific peak times and not create additional traffic issues throughout the day along the nearby roadway network.

The preliminary site location of the proposed Stafford High School #6 will draw students from the existing Colonial Forge, Stafford, and Mountain View High Schools. The proposed site location will reduce capacity at all 3 existing schools as well as reducing student drive times for residential areas along the US Route 17 corridor.

8.2 RECOMMENDATIONS

The installation of recommended roadway improvements will correspond with the traffic generated by the respective development of a 2,150-student high school. The focus of the work within this report is identifying a comprehensive access plan that provides functional access to the site and preserves the capacity of the surrounding roadway network.

To accommodate the anticipated traffic associated with Stafford County High School #6, the recommended improvements plan is as follows:

- Extend Stafford Plaza Drive approximately 2,600' north from its current terminus to form 4th leg of the intersection of Truslow Road and Summer Breeze Lane.

- US Route 17 at Village Parkway/Stafford Plaza Drive
    - Install 2nd left turn lane on EB US Route 17 at Village Parkway/Stafford Plaza Drive, including storage and taper to meet VDOT minimums of 200 feet by 200 feet.
    - Optimize signal timings for the intersection of US Route 17 at Village Parkway/Stafford Plaza Drive to account for the revised geometry and additional traffic volumes. It is understood that US Route 17 is a coordinated corridor and that the entire corridor may need to be reviewed after installation of the proposed school development.

- Truslow Road at Summer Breeze Lane/Proposed Site Entrance
    - Install a WB left turn lane and EB right turn lane on Truslow Road, including storage and tapers to meet VDOT minimums of 200 feet by 200 feet.
      OR
    - Install a single-lane roundabout at the intersection.

- Install three (3) full access entrances along the proposed extension of Stafford Plaza Drive to serve student, employee, parent/visitor, and bus traffic.
    - At the northern and southern entrances, install a NB left turn lane and SB right turn lane on the proposed extension of Stafford Plaza Drive, including storage and tapers to meet VDOT minimums of 200 feet by 200 feet.

- Install one (1) exit-only access point on Truslow Road.

The existing traffic signal on US Route 17 at Village Parkway/Stafford Plaza Drive has the capacity to accommodate the improvements (2nd EB left turn lane) without replacement as only changes to existing signage and/or signal head placement will be required. The existing traffic signals are not recommended for full replacement as part of this development.

It should be noted that the recommended improvements will require coordination with VDOT to ensure that the traffic signal timings within the study area are reviewed for potential improvements to the overall operations of the US Route 17 corridor.

Appendix A

Traffic Count Data

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File Name : 2-Rt 17 & Village Parkway_Stafford Plaza AM
Site Code :
Start Date : 11/23/2021
Page No : 1

Groups Printed- Cars

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
08:30 AM	19	209	7	0	235	14	3	8	0	25	0	135	44	0	179	73	7	24	0	104	543
08:45 AM	20	207	10	0	237	11	2	7	0	20	0	182	47	0	229	51	2	37	0	90	576
Total	39	416	17	0	472	25	5	15	0	45	0	317	91	0	408	124	9	61	0	194	1119
09:00 AM	26	187	4	0	217	23	1	7	0	31	1	167	44	0	212	54	4	56	0	114	574
09:15 AM	26	223	5	0	254	6	4	3	0	13	0	151	44	0	195	47	2	24	0	73	535
09:30 AM	34	186	9	0	229	10	4	4	0	18	1	154	55	0	210	36	5	17	0	58	515
09:45 AM	25	245	4	0	274	11	5	12	0	28	0	144	57	0	201	48	4	16	0	68	571
Total	111	841	22	0	974	50	14	26	0	90	2	616	200	0	818	185	15	113	0	313	2195
10:00 AM	27	193	8	0	228	6	4	15	0	25	2	196	62	0	260	61	10	25	0	96	609
10:15 AM	17	225	9	0	251	13	5	9	0	27	1	174	53	0	228	40	5	21	0	66	572
Grand Total	194	1675	56	0	1925	94	28	65	0	187	5	1303	406	0	1714	410	39	220	0	669	4495
Apprch %	10.1	87	2.9	0		50.3	15	34.8	0		0.3	76	23.7	0		61.3	5.8	32.9	0		
Total %	4.3	37.3	1.2	0	42.8	2.1	0.6	1.4	0	4.2	0.1	29	9	0	38.1	9.1	0.9	4.9	0	14.9	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 09:30 AM																	
09:30 AM	**34**	186	**9**	229	10	4	4	18	1	154	55	210	36	5	17	58	515
09:45 AM	25	**245**	4	**274**	11	**5**	12	**28**	0	144	57	201	48	4	16	68	571
10:00 AM	27	193	8	228	6	4	**15**	25	**2**	**196**	**62**	**260**	**61**	**10**	**25**	**96**	**609**
10:15 AM	17	225	9	251	**13**	5	9	27	1	174	53	228	40	5	21	66	572
Total Volume	103	849	30	982	40	18	40	98	4	668	227	899	185	24	79	288	2267
% App. Total	10.5	86.5	3.1		40.8	18.4	40.8		0.4	74.3	25.3		64.2	8.3	27.4		
PHF	.757	.866	.833	.896	.769	.900	.667	.875	.500	.852	.915	.864	.758	.600	.790	.750	.931

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File Name : 2-Rt 17 & Village Parkway_Stafford Plaza AM
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Groups Printed- Trucks

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
08:30 AM	2	21	3	0	26	3	0	1	0	4	0	27	6	0	33	5	0	0	0	5	68
08:45 AM	1	30	0	0	31	0	0	2	0	2	0	32	2	0	34	1	0	4	0	5	72
Total	3	51	3	0	57	3	0	3	0	6	0	59	8	0	67	6	0	4	0	10	140
09:00 AM	0	32	1	0	33	2	0	2	0	4	0	33	0	0	33	0	0	4	0	4	74
09:15 AM	1	30	0	0	31	1	0	0	0	1	0	22	2	0	24	1	0	1	0	2	58
09:30 AM	1	27	1	0	29	0	0	0	0	0	0	32	4	0	36	0	0	1	0	1	66
09:45 AM	0	39	1	0	40	2	0	1	0	3	0	39	3	0	42	1	0	1	0	2	87
Total	2	128	3	0	133	5	0	3	0	8	0	126	9	0	135	2	0	7	0	9	285
10:00 AM	2	37	0	0	39	1	0	0	0	1	0	45	0	0	45	1	0	2	0	3	88
10:15 AM	2	22	0	0	24	1	0	0	0	1	0	28	2	0	30	0	0	1	0	1	56
Grand Total	9	238	6	0	253	10	0	6	0	16	0	258	19	0	277	9	0	14	0	23	569
Apprch %	3.6	94.1	2.4	0		62.5	0	37.5	0		0	93.1	6.9	0		39.1	0	60.9	0		
Total %	1.6	41.8	1.1	0	44.5	1.8	0	1.1	0	2.8	0	45.3	3.3	0	48.7	1.6	0	2.5	0	4	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 09:15 AM																	
09:15 AM	1	30	0	31	1	0	0	1	0	22	2	24	**1**	0	1	2	58
09:30 AM	1	27	**1**	29	0	0	0	0	0	32	**4**	36	0	0	1	1	66
09:45 AM	0	**39**	1	**40**	**2**	0	**1**	**3**	0	39	3	42	1	0	1	2	87
10:00 AM	**2**	37	0	39	1	0	0	1	0	**45**	0	**45**	1	0	**2**	**3**	**88**
Total Volume	4	133	2	139	4	0	1	5	0	138	9	147	3	0	5	8	299
% App. Total	2.9	95.7	1.4		80	0	20		0	93.9	6.1		37.5	0	62.5		
PHF	.500	.853	.500	.869	.500	.000	.250	.417	.000	.767	.563	.817	.750	.000	.625	.667	.849

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Groups Printed- Bicycles on Crosswalk

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Pedestrians

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:30 AM																	
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Combined

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
08:30 AM	21	230	10	0	261	17	3	9	0	29	0	162	50	0	212	78	7	24	0	109	611
08:45 AM	21	237	10	0	268	11	2	9	0	22	0	214	49	0	263	52	2	41	0	95	648
Total	42	467	20	0	529	28	5	18	0	51	0	376	99	0	475	130	9	65	0	204	1259
09:00 AM	26	219	5	0	250	25	1	9	0	35	1	200	44	0	245	54	4	60	0	118	648
09:15 AM	27	253	5	0	285	7	4	3	0	14	0	173	46	0	219	48	2	25	0	75	593
09:30 AM	35	213	10	0	258	10	4	4	0	18	1	186	59	0	246	36	5	18	0	59	581
09:45 AM	25	284	5	0	314	13	5	13	0	31	0	183	60	0	243	49	4	17	0	70	658
Total	113	969	25	0	1107	55	14	29	0	98	2	742	209	0	953	187	15	120	0	322	2480
10:00 AM	29	230	8	0	267	7	4	15	0	26	2	241	62	0	305	62	10	27	0	99	697
10:15 AM	19	247	9	0	275	14	5	9	0	28	1	202	55	0	258	40	5	22	0	67	628
Grand Total	203	1913	62	0	2178	104	28	71	0	203	5	1561	425	0	1991	419	39	234	0	692	5064
Apprch %	9.3	87.8	2.8	0		51.2	13.8	35	0		0.3	78.4	21.3	0		60.5	5.6	33.8	0		
Total %	4	37.8	1.2	0	43	2.1	0.6	1.4	0	4	0.1	30.8	8.4	0	39.3	8.3	0.8	4.6	0	13.7	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 09:30 AM																	
09:30 AM	**35**	213	**10**	258	10	4	4	18	1	186	59	246	36	5	18	59	581
09:45 AM	25	**284**	5	**314**	13	**5**	13	**31**	0	183	60	243	49	4	17	70	658
10:00 AM	29	230	8	267	7	4	**15**	26	**2**	**241**	**62**	**305**	**62**	**10**	**27**	**99**	**697**
10:15 AM	19	247	9	275	**14**	5	9	28	1	202	55	258	40	5	22	67	628
Total Volume	108	974	32	1114	44	18	41	103	4	812	236	1052	187	24	84	295	2564
% App. Total	9.7	87.4	2.9		42.7	17.5	39.8		0.4	77.2	22.4		63.4	8.1	28.5		
PHF	.771	.857	.800	.887	.786	.900	.683	.831	.500	.842	.952	.862	.754	.600	.778	.745	.920

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File Name : 2-Rt 17 & Village Parkway_Stafford Plaza PM
Site Code :
Start Date : 11/23/2021
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Groups Printed- Cars

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:30 PM	42	297	16	0	355	17	3	12	0	32	2	299	65	0	366	39	5	38	0	82	835
02:45 PM	39	281	10	0	330	23	6	9	0	38	4	264	60	0	328	51	4	44	0	99	795
Total	81	578	26	0	685	40	9	21	0	70	6	563	125	0	694	90	9	82	0	181	1630
03:00 PM	50	263	3	0	316	11	5	7	0	23	5	309	73	0	387	49	2	51	0	102	828
03:15 PM	56	296	6	0	358	17	9	8	0	34	0	302	77	0	379	50	5	73	0	128	899
03:30 PM	42	281	7	0	330	15	3	5	0	23	5	279	77	0	361	64	6	47	0	117	831
03:45 PM	35	264	11	0	310	20	6	7	0	33	3	259	78	0	340	50	7	47	0	104	787
Total	183	1104	27	0	1314	63	23	27	0	113	13	1149	305	0	1467	213	20	218	0	451	3345
04:00 PM	53	238	11	0	302	21	6	10	0	37	3	292	83	0	378	58	4	40	0	102	819
04:15 PM	50	277	11	0	338	19	5	7	0	31	2	316	87	0	405	53	2	37	0	92	866
Grand Total	367	2197	75	0	2639	143	43	65	0	251	24	2320	600	0	2944	414	35	377	0	826	6660
Apprch %	13.9	83.3	2.8	0		57	17.1	25.9	0		0.8	78.8	20.4	0		50.1	4.2	45.6	0		
Total %	5.5	33	1.1	0	39.6	2.1	0.6	1	0	3.8	0.4	34.8	9	0	44.2	6.2	0.5	5.7	0	12.4	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	42	**297**	**16**	355	17	3	**12**	32	2	299	65	366	39	**5**	38	82	835
02:45 PM	39	281	10	330	**23**	6	9	**38**	4	264	60	328	**51**	4	44	99	795
03:00 PM	50	263	3	316	11	5	7	23	**5**	**309**	73	**387**	49	2	51	102	828
03:15 PM	**56**	296	6	**358**	17	**9**	8	34	0	302	**77**	379	50	5	**73**	**128**	**899**
Total Volume	187	1137	35	1359	68	23	36	127	11	1174	275	1460	189	16	206	411	3357
% App. Total	13.8	83.7	2.6		53.5	18.1	28.3		0.8	80.4	18.8		46	3.9	50.1		
PHF	.835	.957	.547	.949	.739	.639	.750	.836	.550	.950	.893	.943	.926	.800	.705	.803	.934

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Groups Printed- Trucks

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:30 PM	0	34	0	0	34	0	0	0	0	0	0	35	1	0	36	1	1	2	0	4	74
02:45 PM	0	41	0	0	41	0	0	2	0	2	0	29	0	0	29	0	0	1	0	1	73
Total	0	75	0	0	75	0	0	2	0	2	0	64	1	0	65	1	1	3	0	5	147
03:00 PM	0	55	0	0	55	1	0	0	0	1	0	39	2	0	41	1	0	1	0	2	99
03:15 PM	1	39	2	0	42	0	0	1	0	1	1	28	3	0	32	3	0	1	0	4	79
03:30 PM	2	30	0	0	32	1	1	0	0	2	0	27	0	0	27	1	0	3	0	4	65
03:45 PM	1	38	0	0	39	1	1	0	0	2	0	34	2	0	36	0	0	2	0	2	79
Total	4	162	2	0	168	3	2	1	0	6	1	128	7	0	136	5	0	7	0	12	322
04:00 PM	2	28	0	0	30	0	0	0	0	0	0	27	3	0	30	3	0	1	0	4	64
04:15 PM	2	43	0	0	45	1	0	0	0	1	0	19	0	0	19	0	0	1	0	1	66
Grand Total	8	308	2	0	318	4	2	3	0	9	1	238	11	0	250	9	1	12	0	22	599
Apprch %	2.5	96.9	0.6	0		44.4	22.2	33.3	0		0.4	95.2	4.4	0		40.9	4.5	54.5	0		
Total %	1.3	51.4	0.3	0	53.1	0.7	0.3	0.5	0	1.5	0.2	39.7	1.8	0	41.7	1.5	0.2	2	0	3.7	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	0	34	0	34	0	0	0	0	0	35	1	36	1	**1**	**2**	**4**	74
02:45 PM	0	41	0	41	0	0	**2**	**2**	0	29	0	29	0	0	1	1	73
03:00 PM	0	**55**	0	**55**	**1**	0	0	1	0	**39**	2	**41**	1	0	1	2	**99**
03:15 PM	**1**	39	**2**	42	0	0	1	1	**1**	28	**3**	32	**3**	0	1	4	79
Total Volume	1	169	2	172	1	0	3	4	1	131	6	138	5	1	5	11	325
% App. Total	0.6	98.3	1.2		25	0	75		0.7	94.9	4.3		45.5	9.1	45.5		
PHF	.250	.768	.250	.782	.250	.000	.375	.500	.250	.840	.500	.841	.417	.250	.625	.688	.821

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Groups Printed- Bicycles on Crosswalk

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Pedestrians

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Combined

	Rt 17 Southbound					Stafford Plaza Dr Westbound					Rt 17 Northbound					Village Pkwy Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:30 PM	42	331	16	0	389	17	3	12	0	32	2	334	66	0	402	40	6	40	0	86	909
02:45 PM	39	322	10	0	371	23	6	11	0	40	4	293	60	0	357	51	4	45	0	100	868
Total	81	653	26	0	760	40	9	23	0	72	6	627	126	0	759	91	10	85	0	186	1777
03:00 PM	50	318	3	0	371	12	5	7	0	24	5	348	75	0	428	50	2	52	0	104	927
03:15 PM	57	335	8	0	400	17	9	9	0	35	1	330	80	0	411	53	5	74	0	132	978
03:30 PM	44	311	7	0	362	16	4	5	0	25	5	306	77	0	388	65	6	50	0	121	896
03:45 PM	36	302	11	0	349	21	7	7	0	35	3	293	80	0	376	50	7	49	0	106	866
Total	187	1266	29	0	1482	66	25	28	0	119	14	1277	312	0	1603	218	20	225	0	463	3667
04:00 PM	55	266	11	0	332	21	6	10	0	37	3	319	86	0	408	61	4	41	0	106	883
04:15 PM	52	320	11	0	383	20	5	7	0	32	2	335	87	0	424	53	2	38	0	93	932
Grand Total	375	2505	77	0	2957	147	45	68	0	260	25	2558	611	0	3194	423	36	389	0	848	7259
Apprch %	12.7	84.7	2.6	0		56.5	17.3	26.2	0		0.8	80.1	19.1	0		49.9	4.2	45.9	0		
Total %	5.2	34.5	1.1	0	40.7	2	0.6	0.9	0	3.6	0.3	35.2	8.4	0	44	5.8	0.5	5.4	0	11.7	

	Rt 17 Southbound				Stafford Plaza Dr Westbound				Rt 17 Northbound				Village Pkwy Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	42	331	**16**	389	17	3	**12**	32	2	334	66	402	40	**6**	40	86	909
02:45 PM	39	322	10	371	**23**	6	11	**40**	4	293	60	357	51	4	45	100	868
03:00 PM	50	318	3	371	12	5	7	24	**5**	**348**	75	**428**	50	2	52	104	927
03:15 PM	**57**	**335**	8	**400**	17	**9**	9	35	1	330	**80**	411	**53**	5	**74**	**132**	**978**
Total Volume	188	1306	37	1531	69	23	39	131	12	1305	281	1598	194	17	211	422	3682
% App. Total	12.3	85.3	2.4		52.7	17.6	29.8		0.8	81.7	17.6		46	4	50		
PHF	.825	.975	.578	.957	.750	.639	.813	.819	.600	.938	.878	.933	.915	.708	.713	.799	.941

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File Name : 5-Truslow Rd & Summer Breeze Ln AM
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Groups Printed- Cars

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
08:30 AM	15	0	0	15	0	5	0	5	4	24	0	28	48
08:45 AM	19	0	0	19	1	2	0	3	1	17	0	18	40
Total	34	0	0	34	1	7	0	8	5	41	0	46	88
09:00 AM	11	0	0	11	0	3	0	3	7	33	0	40	54
09:15 AM	15	0	0	15	0	2	0	2	2	12	0	14	31
09:30 AM	23	0	0	23	0	2	0	2	3	15	0	18	43
09:45 AM	15	0	0	15	0	8	0	8	1	16	0	17	40
Total	64	0	0	64	0	15	0	15	13	76	0	89	168
10:00 AM	8	1	0	9	0	6	0	6	2	32	0	34	49
10:15 AM	18	0	0	18	1	2	0	3	5	19	0	24	45
Grand Total	124	1	0	125	2	30	0	32	25	168	0	193	350
Apprch %	99.2	0.8	0		6.2	93.8	0		13	87	0		
Total %	35.4	0.3	0	35.7	0.6	8.6	0	9.1	7.1	48	0	55.1	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:30 AM										
09:30 AM	**23**	0	**23**	0	2	2	3	15	18	43
09:45 AM	15	0	15	0	**8**	**8**	1	16	17	40
10:00 AM	8	**1**	9	0	6	6	2	**32**	**34**	**49**
10:15 AM	18	0	18	**1**	2	3	**5**	19	24	45
Total Volume	64	1	65	1	18	19	11	82	93	177
% App. Total	98.5	1.5		5.3	94.7		11.8	88.2		
PHF	.696	.250	.707	.250	.563	.594	.550	.641	.684	.903

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Groups Printed- Trucks

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
08:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	0	0	0	0	0	2	0	2	3
09:00 AM	1	0	0	1	1	0	0	1	0	1	0	1	3
09:15 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
09:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
09:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	4	0	0	4	1	0	0	1	0	5	0	5	10
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	3
10:15 AM	0	0	0	0	0	1	0	1	0	1	0	1	2
Grand Total	5	0	0	5	1	1	0	2	0	11	0	11	18
Apprch %	100	0	0		50	50	0		0	100	0		
Total %	27.8	0	0	27.8	5.6	5.6	0	11.1	0	61.1	0	61.1	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	1	0	1	0	0	0	0	1	1	2
08:45 AM	0	0	0	0	0	0	0	1	1	1
09:00 AM	1	0	1	**1**	0	**1**	0	1	1	3
09:15 AM	**2**	0	**2**	0	0	0	0	**2**	**2**	**4**
Total Volume	4	0	4	1	0	1	0	5	5	10
% App. Total	100	0		100	0		0	100		
PHF	.500	.000	.500	.250	.000	.250	.000	.625	.625	.625

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Groups Printed- Bicycles on Crosswalk

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		
Total %													

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Pedestrians

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		
Total %													

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:30 AM										
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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File Name : 5-Truslow Rd & Summer Breeze Ln AM
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Groups Printed- Combined

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
08:30 AM	16	0	0	16	0	5	0	5	4	25	0	29	50
08:45 AM	19	0	0	19	1	2	0	3	1	18	0	19	41
Total	35	0	0	35	1	7	0	8	5	43	0	48	91
09:00 AM	12	0	0	12	1	3	0	4	7	34	0	41	57
09:15 AM	17	0	0	17	0	2	0	2	2	14	0	16	35
09:30 AM	24	0	0	24	0	2	0	2	3	16	0	19	45
09:45 AM	15	0	0	15	0	8	0	8	1	17	0	18	41
Total	68	0	0	68	1	15	0	16	13	81	0	94	178
10:00 AM	8	1	0	9	0	6	0	6	2	35	0	37	52
10:15 AM	18	0	0	18	1	3	0	4	5	20	0	25	47
Grand Total	129	1	0	130	3	31	0	34	25	179	0	204	368
Apprch %	99.2	0.8	0		8.8	91.2	0		12.3	87.7	0		
Total %	35.1	0.3	0	35.3	0.8	8.4	0	9.2	6.8	48.6	0	55.4	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 10:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 09:30 AM										
09:30 AM	**24**	0	**24**	0	2	2	3	16	19	45
09:45 AM	15	0	15	0	**8**	**8**	1	17	18	41
10:00 AM	8	**1**	9	0	6	6	2	**35**	**37**	**52**
10:15 AM	18	0	18	**1**	3	4	**5**	20	25	47
Total Volume	65	1	66	1	19	20	11	88	99	185
% App. Total	98.5	1.5		5	95		11.1	88.9		
PHF	.677	.250	.688	.250	.594	.625	.550	.629	.669	.889

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File Name : 5-Truslow Rd & Summer Breeze Ln PM
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Groups Printed- Cars

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:30 PM	48	0	0	48	0	3	0	3	4	19	0	23	74
02:45 PM	41	0	0	41	0	5	0	5	3	19	0	22	68
Total	89	0	0	89	0	8	0	8	7	38	0	45	142
03:00 PM	54	0	0	54	0	3	0	3	6	45	0	51	108
03:15 PM	53	0	0	53	0	4	0	4	4	32	0	36	93
03:30 PM	67	0	0	67	0	4	0	4	9	30	0	39	110
03:45 PM	71	1	0	72	0	1	0	1	7	37	0	44	117
Total	245	1	0	246	0	12	0	12	26	144	0	170	428
04:00 PM	90	1	0	91	1	2	0	3	9	31	0	40	134
04:15 PM	83	0	0	83	0	7	0	7	6	26	0	32	122
Grand Total	507	2	0	509	1	29	0	30	48	239	0	287	826
Apprch %	99.6	0.4	0		3.3	96.7	0		16.7	83.3	0		
Total %	61.4	0.2	0	61.6	0.1	3.5	0	3.6	5.8	28.9	0	34.7	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	67	0	67	0	4	4	**9**	30	39	110
03:45 PM	71	**1**	72	0	1	1	7	**37**	**44**	117
04:00 PM	**90**	1	**91**	**1**	2	3	9	31	40	**134**
04:15 PM	83	0	83	0	**7**	**7**	6	26	32	122
Total Volume	311	2	313	1	14	15	31	124	155	483
% App. Total	99.4	0.6		6.7	93.3		20	80		
PHF	.864	.500	.860	.250	.500	.536	.861	.838	.881	.901

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Groups Printed- Trucks

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:30 PM	1	0	0	1	0	0	0	0	1	3	0	4	5
02:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total	3	0	0	3	0	0	0	0	1	5	0	6	9
03:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
03:15 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
03:30 PM	5	0	0	5	0	0	0	0	0	3	0	3	8
03:45 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
Total	9	0	0	9	1	0	0	1	0	6	0	6	16
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	3	0	0	3	0	0	0	0	0	0	0	0	3
Grand Total	15	0	0	15	1	0	0	1	1	11	0	12	28
Apprch %	100	0	0		100	0	0		8.3	91.7	0		
Total %	53.6	0	0	53.6	3.6	0	0	3.6	3.6	39.3	0	42.9	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:45 PM										
02:45 PM	2	0	2	0	0	0	0	2	2	4
03:00 PM	1	0	1	0	0	0	0	1	1	2
03:15 PM	0	0	0	**1**	0	**1**	0	1	1	2
03:30 PM	**5**	0	**5**	0	0	0	0	**3**	**3**	**8**
Total Volume	8	0	8	1	0	1	0	7	7	16
% App. Total	100	0		100	0		0	100		
PHF	.400	.000	.400	.250	.000	.250	.000	.583	.583	.500

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File Name : 5-Truslow Rd & Summer Breeze Ln PM
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Groups Printed- Bicycles on Crosswalk

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		
Total %													

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:30 PM										
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Pedestrians

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		
Total %													

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:30 PM										
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Groups Printed- Combined

	Truslow Rd Southbound				Summer Breeze Ln Westbound				Truslow Rd Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
02:30 PM	49	0	0	49	0	3	0	3	5	22	0	27	79
02:45 PM	43	0	0	43	0	5	0	5	3	21	0	24	72
Total	92	0	0	92	0	8	0	8	8	43	0	51	151
03:00 PM	55	0	0	55	0	3	0	3	6	46	0	52	110
03:15 PM	53	0	0	53	1	4	0	5	4	33	0	37	95
03:30 PM	72	0	0	72	0	4	0	4	9	33	0	42	118
03:45 PM	74	1	0	75	0	1	0	1	7	38	0	45	121
Total	254	1	0	255	1	12	0	13	26	150	0	176	444
04:00 PM	90	1	0	91	1	2	0	3	9	31	0	40	134
04:15 PM	86	0	0	86	0	7	0	7	6	26	0	32	125
Grand Total	522	2	0	524	2	29	0	31	49	250	0	299	854
Apprch %	99.6	0.4	0		6.5	93.5	0		16.4	83.6	0		
Total %	61.1	0.2	0	61.4	0.2	3.4	0	3.6	5.7	29.3	0	35	

	Truslow Rd Southbound			Summer Breeze Ln Westbound			Truslow Rd Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:30 PM to 04:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	72	0	72	0	4	4	**9**	33	42	118
03:45 PM	74	**1**	75	0	1	1	7	**38**	**45**	121
04:00 PM	**90**	1	**91**	**1**	2	3	9	31	40	**134**
04:15 PM	86	0	86	0	**7**	**7**	6	26	32	125
Total Volume	322	2	324	1	14	15	31	128	159	498
% App. Total	99.4	0.6		6.7	93.3		19.5	80.5		
PHF	.894	.500	.890	.250	.500	.536	.861	.842	.883	.929

Appendix B

Synchro & SimTraffic Analysis of 2021 Existing Conditions

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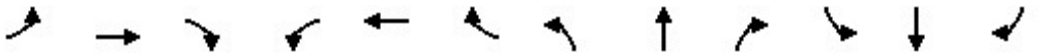
High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2021 Existing AM Peak
Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	35	1059	117	257	883	4	58	59	203	45	20	48
v/c Ratio	0.36	0.63	0.13	0.73	0.47	0.00	0.39	0.38	0.25	0.22	0.18	0.18
Control Delay	62.9	31.8	4.9	68.6	19.4	0.0	63.6	62.9	7.0	60.5	61.4	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	31.8	4.9	68.6	19.4	0.0	63.6	62.9	7.0	60.5	61.4	1.5
Queue Length 50th (ft)	29	312	0	108	255	0	49	50	5	19	16	0
Queue Length 95th (ft)	m61	563	m34	#157	325	0	97	98	38	39	43	0
Internal Link Dist (ft)		2018			1571			1149			1079	
Turn Bay Length (ft)	265		265	415		450	225		500	250		250
Base Capacity (vph)	104	1686	914	368	1883	1180	151	159	813	245	135	269
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.63	0.13	0.70	0.47	0.00	0.38	0.37	0.25	0.18	0.15	0.18

Intersection Summary

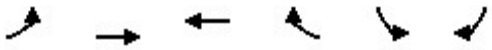
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2021 Existing AM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	974	108	236	812	4	84	24	187	41	18	44
Future Volume (vph)	32	974	108	236	812	4	84	24	187	41	18	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	3195	1538	3367	3059	1615	1618	1699	2814	3433	1900	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1703	3195	1538	3367	3059	1615	1618	1699	2814	3433	1900	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	1059	117	257	883	4	91	26	203	45	20	48
RTOR Reduction (vph)	0	0	59	0	0	2	0	0	155	0	0	43
Lane Group Flow (vph)	35	1059	58	257	883	2	58	59	48	45	20	5
Heavy Vehicles (%)	6%	13%	5%	4%	18%	0%	6%	0%	1%	2%	0%	9%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	6.3	64.7	64.7	13.7	73.1	79.5	9.7	9.7	23.4	6.4	6.4	12.7
Effective Green, g (s)	6.3	64.7	64.7	13.7	73.1	79.5	9.7	9.7	23.4	6.4	6.4	12.7
Actuated g/C Ratio	0.05	0.50	0.50	0.11	0.56	0.61	0.07	0.07	0.18	0.05	0.05	0.10
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	82	1590	765	354	1720	987	120	126	506	169	93	144
v/s Ratio Prot	0.02	c0.33		c0.08	c0.29	0.00	c0.04	0.03	0.01	c0.01	0.01	0.00
v/s Ratio Perm			0.04			0.00			0.01			0.00
v/c Ratio	0.43	0.67	0.08	0.73	0.51	0.00	0.48	0.47	0.09	0.27	0.22	0.03
Uniform Delay, d1	60.1	24.5	17.0	56.3	17.5	9.8	57.7	57.7	44.5	59.5	59.4	53.1
Progression Factor	0.91	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	2.0	0.2	7.2	1.1	0.0	3.6	3.2	0.1	1.0	1.4	0.1
Delay (s)	57.8	31.4	17.2	63.6	18.6	9.8	61.3	60.9	44.5	60.5	60.8	53.2
Level of Service	E	C	B	E	B	A	E	E	D	E	E	D
Approach Delay (s)		30.8			28.7			50.6			57.5	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	65	88	11	19	1
Future Volume (Veh/h)	1	65	88	11	19	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	73	99	12	21	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	111				180	105
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	111				180	105
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1492				802	955

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	74	111	22
Volume Left	1	0	21
Volume Right	0	12	1
cSH	1492	1700	808
Volume to Capacity	0.00	0.07	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	15.3%	ICU Level of Service	A
Analysis Period (min)	15		

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	249	458	457	265	170	208	341	365	16	102	150	123
Average Queue (ft)	43	264	279	82	83	107	135	150	1	14	64	45
95th Queue (ft)	135	411	422	244	147	174	269	293	8	59	125	94
Link Distance (ft)		2013	2013				1539	1539			1156	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265			265	415	415			450	225		500
Storage Blk Time (%)	0	9	11	0		0	0	0				
Queuing Penalty (veh)	0	3	12	1		0	0	0				

1: Village Parkway/Stafford Plaza Drive & US Route 17

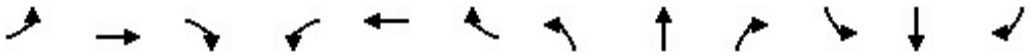
Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	73	33	79	57	64
Average Queue (ft)	7	6	31	14	19
95th Queue (ft)	31	23	64	41	47
Link Distance (ft)				1082	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	250	250		250
Storage Blk Time (%)					
Queuing Penalty (veh)					

2: Truslow Road at Summer Breeze Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	3	50
Average Queue (ft)	0	16
95th Queue (ft)	3	44
Link Distance (ft)	1962	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2021 Existing PM Peak
Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	42	1249	195	344	1305	14	102	103	239	30	23	81
v/c Ratio	0.53	0.75	0.21	0.81	0.65	0.01	0.68	0.67	0.27	0.16	0.25	0.28
Control Delay	93.3	33.9	1.1	99.6	8.2	0.0	88.0	87.2	11.1	68.9	74.0	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.3	33.9	1.1	99.6	8.2	0.0	88.0	87.2	11.1	68.9	74.0	2.3
Queue Length 50th (ft)	41	542	0	184	63	0	102	103	21	14	22	0
Queue Length 95th (ft)	#91	642	11	238	82	m0	#197	#198	60	32	54	0
Internal Link Dist (ft)		2018			1571			1149			1079	
Turn Bay Length (ft)	265		265	415		450	225		500	250		250
Base Capacity (vph)	82	1666	926	451	1997	1178	153	155	918	240	119	296
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.75	0.21	0.76	0.65	0.01	0.67	0.66	0.26	0.13	0.19	0.27

Intersection Summary

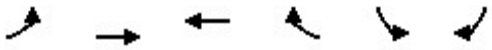
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2021 Existing PM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1199	187	330	1253	13	178	19	229	29	22	78
Future Volume (vph)	40	1199	187	330	1253	13	178	19	229	29	22	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3223	1553	3433	3312	1615	1649	1681	2787	3502	1743	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	3223	1553	3433	3312	1615	1649	1681	2787	3502	1743	1553
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	1249	195	344	1305	14	185	20	239	30	23	81
RTOR Reduction (vph)	0	0	97	0	0	5	0	0	146	0	0	74
Lane Group Flow (vph)	42	1249	98	344	1305	9	102	103	93	30	23	7
Heavy Vehicles (%)	0%	12%	4%	2%	9%	0%	4%	0%	2%	0%	9%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	6.7	75.4	75.4	18.6	88.3	95.1	13.7	13.7	32.3	6.8	6.8	13.5
Effective Green, g (s)	6.7	75.4	75.4	18.6	88.3	95.1	13.7	13.7	32.3	6.8	6.8	13.5
Actuated g/C Ratio	0.04	0.50	0.50	0.12	0.59	0.63	0.09	0.09	0.22	0.05	0.05	0.09
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	80	1620	780	425	1949	1023	150	153	600	158	79	139
v/s Ratio Prot	0.02	c0.39		c0.10	c0.39	0.00	c0.06	0.06	0.02	0.01	c0.01	0.00
v/s Ratio Perm			0.06			0.01			0.01			0.00
v/c Ratio	0.53	0.77	0.13	0.81	0.67	0.01	0.68	0.67	0.16	0.19	0.29	0.05
Uniform Delay, d1	70.1	30.3	19.8	64.0	20.9	10.1	66.0	66.0	47.8	68.9	69.3	62.4
Progression Factor	1.00	1.00	1.00	1.38	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	3.6	0.3	7.9	1.3	0.0	12.4	11.5	0.1	0.7	2.4	0.2
Delay (s)	76.2	33.9	20.1	96.3	8.3	10.1	78.4	77.5	47.9	69.6	71.7	62.6
Level of Service	E	C	C	F	A	B	E	E	D	E	E	E
Approach Delay (s)		33.3			26.5			61.8			65.7	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	322	128	31	14	1
Future Volume (Veh/h)	2	322	128	31	14	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	2	346	138	33	15	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	171				504	154
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	171				504	154
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1418				530	897

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	348	171	16
Volume Left	2	0	15
Volume Right	0	33	1
cSH	1418	1700	544
Volume to Capacity	0.00	0.10	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	11.8
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	11.8
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	246	531	541	265	237	251	427	338	20	163	195	159
Average Queue (ft)	51	312	328	110	141	158	125	138	2	66	113	65
95th Queue (ft)	156	495	504	284	215	232	239	262	12	154	181	129
Link Distance (ft)		2013	2013				1539	1539			1156	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265			265	415	415			450	225		500
Storage Blk Time (%)	0	13	15	0			0	0			0	
Queuing Penalty (veh)	0	5	27	2			0	0			0	

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	127	25	71	70	112
Average Queue (ft)	20	3	23	18	41
95th Queue (ft)	76	15	56	53	89
Link Distance (ft)				1082	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	250	250		250
Storage Blk Time (%)					
Queuing Penalty (veh)					

2: Truslow Road at Summer Breeze Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	17	34
Average Queue (ft)	1	12
95th Queue (ft)	9	36
Link Distance (ft)	1962	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Appendix C

Synchro & SimTraffic Analysis of 2027 Background Conditions

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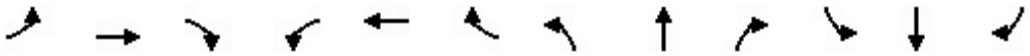
High School 6 2027 Background AM Peak
1: Village Parkway/Stafford Plaza Drive & US Route 17 Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	1124	125	273	937	4	61	63	216	48	21	51
v/c Ratio	0.39	0.67	0.14	0.76	0.50	0.00	0.41	0.40	0.27	0.24	0.19	0.19
Control Delay	64.3	33.1	5.2	70.2	20.0	0.0	64.2	63.6	10.4	60.8	61.5	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	33.1	5.2	70.2	20.0	0.0	64.2	63.6	10.4	60.8	61.5	1.6
Queue Length 50th (ft)	31	372	0	115	278	0	51	53	16	20	17	0
Queue Length 95th (ft)	m64	593	m37	#177	353	0	102	104	51	41	45	0
Internal Link Dist (ft)		2018			1571			1149			1079	
Turn Bay Length (ft)	265		265	415		450	225		500	250		250
Base Capacity (vph)	103	1677	910	370	1881	1179	152	159	801	245	135	269
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.67	0.14	0.74	0.50	0.00	0.40	0.40	0.27	0.20	0.16	0.19

Intersection Summary

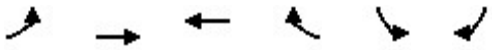
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2027 Background AM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1034	115	251	862	4	89	25	199	44	19	47
Future Volume (vph)	34	1034	115	251	862	4	89	25	199	44	19	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1703	3195	1538	3367	3059	1615	1618	1697	2814	3433	1900	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1703	3195	1538	3367	3059	1615	1618	1697	2814	3433	1900	1482
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	1124	125	273	937	4	97	27	216	48	21	51
RTOR Reduction (vph)	0	0	63	0	0	2	0	0	138	0	0	46
Lane Group Flow (vph)	37	1124	62	273	937	2	61	63	78	48	21	5
Heavy Vehicles (%)	6%	13%	5%	4%	18%	0%	6%	0%	1%	2%	0%	9%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	6.2	64.3	64.3	14.0	73.1	79.6	9.7	9.7	23.7	6.5	6.5	12.7
Effective Green, g (s)	6.2	64.3	64.3	14.0	73.1	79.6	9.7	9.7	23.7	6.5	6.5	12.7
Actuated g/C Ratio	0.05	0.49	0.49	0.11	0.56	0.61	0.07	0.07	0.18	0.05	0.05	0.10
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	81	1580	760	362	1720	988	120	126	513	171	95	144
v/s Ratio Prot	0.02	c0.35		c0.08	c0.31	0.00	c0.04	0.04	0.02	c0.01	0.01	0.00
v/s Ratio Perm			0.04			0.00			0.01			0.00
v/c Ratio	0.46	0.71	0.08	0.75	0.54	0.00	0.51	0.50	0.15	0.28	0.22	0.03
Uniform Delay, d1	60.3	25.6	17.3	56.3	18.0	9.8	57.9	57.8	44.7	59.5	59.3	53.1
Progression Factor	0.91	1.19	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	2.5	0.2	8.6	1.2	0.0	4.0	3.7	0.1	1.1	1.4	0.1
Delay (s)	58.6	32.9	17.5	65.0	19.2	9.8	61.8	61.5	44.8	60.6	60.7	53.2
Level of Service	E	C	B	E	B	A	E	E	D	E	E	D
Approach Delay (s)		32.1			29.5			51.0			57.5	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	34.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	69	93	12	20	1
Future Volume (Veh/h)	1	69	93	12	20	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	75	101	13	22	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	114				184	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	114				184	108
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1488				797	952

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	76	114	23
Volume Left	1	0	22
Volume Right	0	13	1
cSH	1488	1700	803
Volume to Capacity	0.00	0.07	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	15.6%	ICU Level of Service	A
Analysis Period (min)	15		

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	264	515	527	265	191	264	391	397	21	118	160	112
Average Queue (ft)	47	305	324	108	98	121	147	167	2	17	67	48
95th Queue (ft)	152	474	493	289	169	203	307	335	12	67	130	96
Link Distance (ft)		2013	2013				1539	1539			1156	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265			265	415	415			450	225		500
Storage Blk Time (%)	0	13	15	0		0	0	0			0	
Queuing Penalty (veh)	0	4	18	2		0	0	0			0	

1: Village Parkway/Stafford Plaza Drive & US Route 17

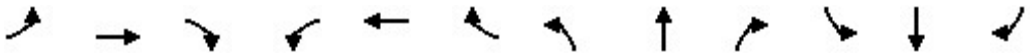
Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	84	38	79	63	65
Average Queue (ft)	10	5	30	15	22
95th Queue (ft)	41	22	65	44	51
Link Distance (ft)				1082	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	250	250		250
Storage Blk Time (%)					
Queuing Penalty (veh)					

2: Truslow Road at Summer Breeze Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	3	46
Average Queue (ft)	0	17
95th Queue (ft)	3	44
Link Distance (ft)	1962	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2027 Background PM Peak
Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	1326	207	365	1385	15	108	110	253	32	24	86
v/c Ratio	0.55	0.80	0.22	0.84	0.69	0.01	0.72	0.71	0.28	0.17	0.26	0.29
Control Delay	94.7	36.5	1.4	99.0	9.2	0.0	91.0	90.6	14.5	69.0	74.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.7	36.5	1.4	99.0	9.2	0.0	91.0	90.6	14.5	69.0	74.2	2.5
Queue Length 50th (ft)	43	598	0	195	67	0	108	110	33	15	23	0
Queue Length 95th (ft)	#95	706	19	#259	116	m0	#214	#217	74	34	55	0
Internal Link Dist (ft)		2018			1571			1149			1079	
Turn Bay Length (ft)	265		265	415		450	225		500	250		250
Base Capacity (vph)	83	1655	921	450	1993	1176	154	156	908	240	119	297
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.80	0.22	0.81	0.69	0.01	0.70	0.71	0.28	0.13	0.20	0.29

Intersection Summary

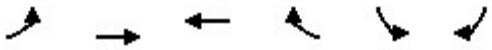
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2027 Background PM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	1273	199	350	1330	14	189	20	243	31	23	83
Future Volume (vph)	42	1273	199	350	1330	14	189	20	243	31	23	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	3223	1553	3433	3312	1615	1649	1680	2787	3502	1743	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	3223	1553	3433	3312	1615	1649	1680	2787	3502	1743	1553
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	44	1326	207	365	1385	15	197	21	253	32	24	86
RTOR Reduction (vph)	0	0	104	0	0	6	0	0	134	0	0	78
Lane Group Flow (vph)	44	1326	103	365	1385	10	108	110	119	32	24	8
Heavy Vehicles (%)	0%	12%	4%	2%	9%	0%	4%	0%	2%	0%	9%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	6.7	74.8	74.8	19.0	88.1	95.0	13.8	13.8	32.8	6.9	6.9	13.6
Effective Green, g (s)	6.7	74.8	74.8	19.0	88.1	95.0	13.8	13.8	32.8	6.9	6.9	13.6
Actuated g/C Ratio	0.04	0.50	0.50	0.13	0.59	0.63	0.09	0.09	0.22	0.05	0.05	0.09
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	80	1607	774	434	1945	1022	151	154	609	161	80	140
v/s Ratio Prot	0.02	c0.41		c0.11	c0.42	0.00	c0.07	0.07	0.02	0.01	c0.01	0.00
v/s Ratio Perm			0.07			0.01			0.02			0.00
v/c Ratio	0.55	0.83	0.13	0.84	0.71	0.01	0.72	0.71	0.20	0.20	0.30	0.06
Uniform Delay, d1	70.2	32.0	20.2	64.0	22.0	10.1	66.2	66.2	47.8	68.9	69.2	62.3
Progression Factor	1.00	1.00	1.00	1.36	0.36	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	5.0	0.4	9.5	1.5	0.0	15.3	15.0	0.2	0.7	2.5	0.2
Delay (s)	78.1	37.0	20.6	96.6	9.3	10.1	81.5	81.2	48.0	69.6	71.7	62.5
Level of Service	E	D	C	F	A	B	F	F	D	E	E	E
Approach Delay (s)		36.0			27.4			63.4			65.7	
Approach LOS		D			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	78.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	342	136	33	15	1
Future Volume (Veh/h)	2	342	136	33	15	1
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	2	368	146	35	16	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	181				536	164
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	181				536	164
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1407				509	886

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	370	181	17
Volume Left	2	0	16
Volume Right	0	35	1
cSH	1407	1700	522
Volume to Capacity	0.00	0.11	0.03
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.1	0.0	12.1
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.1
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	T	R	L	LT	R
Maximum Queue (ft)	235	572	594	265	265	295	368	388	24	184	212	153
Average Queue (ft)	51	325	348	123	161	181	133	146	2	75	121	71
95th Queue (ft)	150	523	543	305	246	266	265	285	13	169	190	134
Link Distance (ft)		2013	2013				1539	1539			1156	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	265			265	415	415			450	225		500
Storage Blk Time (%)	0	14	15	1		0	0	0		0	0	
Queuing Penalty (veh)	0	6	30	3		0	0	0		0	1	

1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	R
Maximum Queue (ft)	126	39	75	78	114
Average Queue (ft)	24	4	23	21	42
95th Queue (ft)	85	22	58	57	91
Link Distance (ft)				1082	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	500	250	250		250
Storage Blk Time (%)					
Queuing Penalty (veh)					

2: Truslow Road at Summer Breeze Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	13	30
Average Queue (ft)	1	11
95th Queue (ft)	9	34
Link Distance (ft)	1962	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Appendix D

Synchro & SimTraffic Analysis of 2027 Total Conditions

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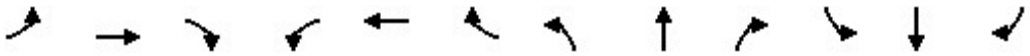
High School 6 2027 Total Future AM Peak
1: Village Parkway/Stafford Plaza Drive & US Route 17 Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	1124	125	273	937	390	87	250	216	268	128	214
v/c Ratio	0.93	0.88	0.17	0.90	0.78	0.43	0.37	0.94	0.23	0.87	0.75	0.49
Control Delay	86.4	49.6	4.9	90.1	40.3	13.8	54.9	97.4	15.3	85.3	83.7	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.4	49.6	4.9	90.1	40.3	13.8	54.9	97.4	15.3	85.3	83.7	11.0
Queue Length 50th (ft)	142	426	2	119	361	127	70	222	32	117	107	23
Queue Length 95th (ft)	103	598	m33	#201	447	66	127	166	67	87	94	4
Internal Link Dist (ft)		2018			1571			1149			442	
Turn Bay Length (ft)	300		265	415		450	225		500	250		250
Base Capacity (vph)	348	1275	744	303	1197	908	238	265	943	308	171	433
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.88	0.17	0.90	0.78	0.43	0.37	0.94	0.23	0.87	0.75	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

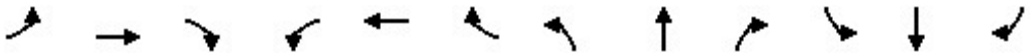
2027 Total Future AM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	1034	115	251	862	195	89	120	199	134	64	107
Future Volume (vph)	161	1034	115	251	862	195	89	120	199	134	64	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3303	3195	1538	3367	3059	1615	1618	1797	2814	3433	1900	1482
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3303	3195	1538	3367	3059	1615	1618	1797	2814	3433	1900	1482
Peak-hour factor, PHF	0.50	0.92	0.92	0.92	0.92	0.50	0.92	0.50	0.92	0.50	0.50	0.50
Adj. Flow (vph)	322	1124	125	273	937	390	97	240	216	268	128	214
RTOR Reduction (vph)	0	0	75	0	0	66	0	0	92	0	0	130
Lane Group Flow (vph)	322	1124	50	273	937	324	87	250	124	268	128	84
Heavy Vehicles (%)	6%	13%	5%	4%	18%	0%	6%	0%	1%	2%	0%	9%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	13.7	51.9	51.9	11.7	50.9	62.6	19.2	19.2	30.9	11.7	11.7	25.4
Effective Green, g (s)	13.7	51.9	51.9	11.7	50.9	62.6	19.2	19.2	30.9	11.7	11.7	25.4
Actuated g/C Ratio	0.11	0.40	0.40	0.09	0.39	0.48	0.15	0.15	0.24	0.09	0.09	0.20
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	348	1275	614	303	1197	777	238	265	668	308	171	289
v/s Ratio Prot	c0.10	c0.35		0.08	0.31	0.04	0.05	c0.14	0.02	c0.08	0.07	0.03
v/s Ratio Perm			0.03			0.16			0.03			0.03
v/c Ratio	0.93	0.88	0.08	0.90	0.78	0.42	0.37	0.94	0.19	0.87	0.75	0.29
Uniform Delay, d1	57.6	36.2	24.2	58.6	34.7	21.9	49.9	54.9	39.5	58.4	57.7	44.6
Progression Factor	0.97	1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	27.5	8.1	0.2	27.9	5.1	0.4	1.1	40.2	0.1	22.9	16.8	0.6
Delay (s)	83.6	49.2	24.5	86.5	39.8	22.3	51.0	95.1	39.6	81.3	74.5	45.2
Level of Service	F	D	C	F	D	C	D	F	D	F	E	D
Approach Delay (s)		54.3			43.5			66.5			67.2	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM 2000 Control Delay	53.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

High School 6
2: Proposed Road/Summer Breeze Lane & Truslow Road

2027 Total Future AM Peak
HCM Unsignalized Intersection Capacity Analysis



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	105	160	159	93	12	15	0	39	20	0	1
Future Volume (Veh/h)	1	105	160	159	93	12	15	0	39	20	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.50	0.50	0.92	0.92	0.50	0.50	0.50	0.92	0.92	0.92
Hourly flow rate (vph)	1	114	320	318	101	13	30	0	78	22	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	114			434			854	866	114	938	1180	108
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114			434			854	866	114	938	1180	108
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			72			86	100	92	87	100	100
cM capacity (veh/h)	1488			1126			218	209	939	173	136	952

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	115	320	318	114	108	23
Volume Left	1	0	318	0	30	22
Volume Right	0	320	0	13	78	1
cSH	1488	1700	1126	1700	489	179
Volume to Capacity	0.00	0.19	0.28	0.07	0.22	0.13
Queue Length 95th (ft)	0	0	29	0	21	11
Control Delay (s)	0.1	0.0	9.5	0.0	14.4	28.0
Lane LOS	A		A		B	D
Approach Delay (s)	0.0		7.0		14.4	28.0
Approach LOS					B	D

Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	32.0%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	134	0	0	109	15	132
Future Volume (Veh/h)	134	0	0	109	15	132
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.50	0.50
Hourly flow rate (vph)	146	0	0	118	30	264
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			146		264	146
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			146		264	146
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	71
cM capacity (veh/h)			1436		725	901

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	146	118	294
Volume Left	0	0	30
Volume Right	0	0	264
cSH	1700	1700	879
Volume to Capacity	0.09	0.07	0.33
Queue Length 95th (ft)	0	0	37
Control Delay (s)	0.0	0.0	11.1
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.1
Approach LOS			B

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
4: Proposed Road & Northern Entrance

2027 Total Future AM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	204	54	210	108
Future Volume (Veh/h)	0	0	204	54	210	108
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.50	0.50	0.50	0.50
Hourly flow rate (vph)	0	0	408	108	420	216
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1344	420	636			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1344	420	636			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	57			
cM capacity (veh/h)	95	633	947			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	408	108	420	216
Volume Left	408	0	0	0
Volume Right	0	0	0	216
cSH	947	1700	1700	1700
Volume to Capacity	0.43	0.06	0.25	0.13
Queue Length 95th (ft)	55	0	0	0
Control Delay (s)	11.6	0.0	0.0	0.0
Lane LOS	B			
Approach Delay (s)	9.2		0.0	
Approach LOS				

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
5: Proposed Road & Southern Entrance

2027 Total Future AM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	54	99	210	258	96	114
Future Volume (Veh/h)	54	99	210	258	96	114
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.50	0.50	0.50	0.50
Hourly flow rate (vph)	108	198	420	516	192	228
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1143		
pX, platoon unblocked						
vC, conflicting volume	1548	192	420			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1548	192	420			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	77	63			
cM capacity (veh/h)	79	850	1139			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	306	420	516	192	228
Volume Left	108	420	0	0	0
Volume Right	198	0	0	0	228
cSH	192	1139	1700	1700	1700
Volume to Capacity	1.60	0.37	0.30	0.11	0.13
Queue Length 95th (ft)	500	43	0	0	0
Control Delay (s)	335.0	10.0	0.0	0.0	0.0
Lane LOS	F	A			
Approach Delay (s)	335.0	4.5		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	64.2		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
6: Proposed Road & Bus Entrance

2027 Total Future AM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	20	20	258	210	10
Future Volume (Veh/h)	10	20	20	258	210	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.50	0.92	0.92	0.50
Hourly flow rate (vph)	20	40	40	280	228	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	598	238	248			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	598	238	248			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	95	97			
cM capacity (veh/h)	451	801	1318			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	60	320	248
Volume Left	20	40	0
Volume Right	40	0	20
cSH	636	1318	1700
Volume to Capacity	0.09	0.03	0.15
Queue Length 95th (ft)	8	2	0
Control Delay (s)	11.2	1.2	0.0
Lane LOS	B	A	
Approach Delay (s)	11.2	1.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	LT
Maximum Queue (ft)	272	300	615	593	265	211	326	490	512	361	223	399
Average Queue (ft)	121	149	379	389	130	103	131	235	256	61	64	149
95th Queue (ft)	250	358	566	555	319	184	239	416	432	223	190	312
Link Distance (ft)			2013	2013				1541	1541			1156
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300	300			265	415	415			450	225	
Storage Blk Time (%)	1	2	17	24	0		0	1	1	0	0	7
Queuing Penalty (veh)	4	12	29	28	3		0	2	2	0	0	19

Intersection: 1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	NB	NB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	R
Maximum Queue (ft)	164	90	158	152	160	139
Average Queue (ft)	53	11	61	62	51	44
95th Queue (ft)	134	50	131	129	117	103
Link Distance (ft)					418	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	500	500	250	250		250
Storage Blk Time (%)	0		0	0	0	
Queuing Penalty (veh)	0		0	0	0	

Intersection: 2: Proposed Road/Summer Breeze Lane & Truslow Road

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	L	LTR	LTR
Maximum Queue (ft)	3	30	93	70	56
Average Queue (ft)	0	4	28	26	16
95th Queue (ft)	3	20	72	55	44
Link Distance (ft)	812			564	434
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Truslow Exit Only & Truslow Road

Movement	NB
Directions Served	LR
Maximum Queue (ft)	81
Average Queue (ft)	38
95th Queue (ft)	65
Link Distance (ft)	406
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Proposed Road & Northern Entrance

Movement	NB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	147	8	32
Average Queue (ft)	40	0	3
95th Queue (ft)	98	4	19
Link Distance (ft)		564	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		300
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Proposed Road & Southern Entrance

Movement	EB	NB	B16	B16	SB	SB
Directions Served	LR	L	T		T	R
Maximum Queue (ft)	371	153	118	81	6	41
Average Queue (ft)	74	38	1	4	0	4
95th Queue (ft)	236	101	43	76	3	23
Link Distance (ft)	603		418	418	601	
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)		300				300
Storage Blk Time (%)						
Queuing Penalty (veh)						

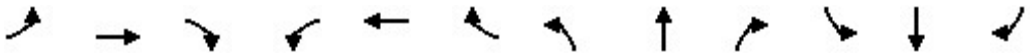
Intersection: 6: Proposed Road & Bus Entrance

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	54	53
Average Queue (ft)	18	6
95th Queue (ft)	45	30
Link Distance (ft)	588	601
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 98

High School 6 2027 Total Future PM Peak
1: Village Parkway/Stafford Plaza Drive & US Route 17 Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	160	1326	207	365	1385	144	146	149	253	308	168	330
v/c Ratio	0.55	0.94	0.26	0.91	0.87	0.14	0.88	0.85	0.30	0.82	0.90	0.86
Control Delay	73.2	53.6	5.3	102.4	23.6	0.6	111.0	104.0	25.5	83.2	108.7	48.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.2	53.6	5.3	102.4	23.6	0.6	111.0	104.0	25.5	83.2	108.7	48.7
Queue Length 50th (ft)	78	648	11	181	444	4	150	153	63	154	165	163
Queue Length 95th (ft)	63	#806	60	#274	565	1	#289	125	106	109	131	91
Internal Link Dist (ft)		2018			1571			1149			512	
Turn Bay Length (ft)	300		265	415		450	225		500	250		250
Base Capacity (vph)	319	1413	786	405	1586	1064	167	177	846	380	189	395
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.94	0.26	0.90	0.87	0.14	0.87	0.84	0.30	0.81	0.89	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

High School 6
1: Village Parkway/Stafford Plaza Drive & US Route 17

2027 Total Future PM Peak
HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	1273	199	350	1330	72	189	49	243	154	84	165
Future Volume (vph)	80	1273	199	350	1330	72	189	49	243	154	84	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.95	0.95	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3502	3223	1553	3433	3312	1615	1649	1751	2787	3502	1743	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3502	3223	1553	3433	3312	1615	1649	1751	2787	3502	1743	1553
Peak-hour factor, PHF	0.50	0.96	0.96	0.96	0.96	0.50	0.96	0.50	0.96	0.50	0.50	0.50
Adj. Flow (vph)	160	1326	207	365	1385	144	197	98	253	308	168	330
RTOR Reduction (vph)	0	0	106	0	0	60	0	0	82	0	0	74
Lane Group Flow (vph)	160	1326	101	365	1385	84	146	149	171	308	168	256
Heavy Vehicles (%)	0%	12%	4%	2%	9%	0%	4%	0%	2%	0%	9%	4%
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6	3	4	4	1	3	3	5
Permitted Phases			2			6			4			3
Actuated Green, G (s)	12.5	65.8	65.8	17.6	71.9	88.0	15.0	15.0	32.6	16.1	16.1	28.6
Effective Green, g (s)	12.5	65.8	65.8	17.6	71.9	88.0	15.0	15.0	32.6	16.1	16.1	28.6
Actuated g/C Ratio	0.08	0.44	0.44	0.12	0.48	0.59	0.10	0.10	0.22	0.11	0.11	0.19
Clearance Time (s)	9.3	6.7	6.7	9.3	5.7	10.7	8.8	8.8	9.3	10.7	10.7	9.3
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	3.5	3.5	3.5	3.0	3.5	3.5	3.0
Lane Grp Cap (vph)	291	1413	681	402	1587	947	164	175	605	375	187	296
v/s Ratio Prot	0.05	c0.41		c0.11	c0.42	0.01	c0.09	0.09	0.03	0.09	c0.10	0.07
v/s Ratio Perm			0.07			0.04			0.03			0.09
v/c Ratio	0.55	0.94	0.15	0.91	0.87	0.09	0.89	0.85	0.28	0.82	0.90	0.87
Uniform Delay, d1	66.0	40.2	25.3	65.4	35.0	13.5	66.7	66.4	48.9	65.5	66.1	58.8
Progression Factor	1.00	1.00	1.00	1.30	0.53	0.27	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.1	13.2	0.5	16.6	4.5	0.0	41.0	31.3	0.3	13.8	38.8	22.3
Delay (s)	68.2	53.3	25.7	101.7	22.9	3.7	107.7	97.7	49.2	79.3	105.0	81.1
Level of Service	E	D	C	F	C	A	F	F	D	E	F	F
Approach Delay (s)		51.4			36.6			78.0			85.4	
Approach LOS		D			D			E			F	

Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	35.5
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

High School 6
2: Proposed Road/Summer Breeze Lane & Truslow Road

2027 Total Future PM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	392	150	48	136	33	20	0	53	15	0	1
Future Volume (Veh/h)	2	392	150	48	136	33	20	0	53	15	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.50	0.50	0.93	0.93	0.50	0.50	0.50	0.93	0.93	0.93
Hourly flow rate (vph)	2	422	300	96	146	35	40	0	106	16	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	181			722			765	799	422	888	1082	164
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	181			722			765	799	422	888	1082	164
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			89			86	100	83	92	100	100
cM capacity (veh/h)	1407			880			293	283	632	203	194	886

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	424	300	96	181	146	17
Volume Left	2	0	96	0	40	16
Volume Right	0	300	0	35	106	1
cSH	1407	1700	880	1700	479	213
Volume to Capacity	0.00	0.18	0.11	0.11	0.30	0.08
Queue Length 95th (ft)	0	0	9	0	32	6
Control Delay (s)	0.0	0.0	9.6	0.0	15.8	23.4
Lane LOS	A		A		C	C
Approach Delay (s)	0.0		3.3		15.8	23.4
Approach LOS					C	C

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	43.9%	ICU Level of Service		A
Analysis Period (min)	15			

High School 6
3: Truslow Exit Only & Truslow Road

2027 Total Future PM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (veh/h)	20	180	363	0	0	157
Future Volume (Veh/h)	20	180	363	0	0	157
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.50	0.50	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	360	395	0	0	171
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	566	395			395	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	566	395			395	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	45			100	
cM capacity (veh/h)	486	654			1164	

Direction, Lane #	NB 1	SE 1	NW 1
Volume Total	400	395	171
Volume Left	40	0	0
Volume Right	360	0	0
cSH	632	1700	1700
Volume to Capacity	0.63	0.23	0.10
Queue Length 95th (ft)	112	0	0
Control Delay (s)	20.0	0.0	0.0
Lane LOS	C		
Approach Delay (s)	20.0	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
4: Proposed Road & Northern Entrance

2027 Total Future PM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	62	74	166	33
Future Volume (Veh/h)	0	0	62	74	166	33
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.50	0.50	0.50	0.50
Hourly flow rate (vph)	0	0	124	148	332	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	728	332	398			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	728	332	398			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	89			
cM capacity (veh/h)	349	710	1161			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	124	148	332	66
Volume Left	124	0	0	0
Volume Right	0	0	0	66
cSH	1161	1700	1700	1700
Volume to Capacity	0.11	0.09	0.20	0.04
Queue Length 95th (ft)	9	0	0	0
Control Delay (s)	8.5	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	3.9		0.0	
Approach LOS				

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
5: Proposed Road & Southern Entrance

2027 Total Future PM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	135	63	136	131	35
Future Volume (Veh/h)	74	135	63	136	131	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.50	0.50	0.50	0.50
Hourly flow rate (vph)	148	270	126	272	262	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1252		
pX, platoon unblocked						
vC, conflicting volume	786	262	332			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	786	262	332			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	65	90			
cM capacity (veh/h)	324	777	1227			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	418	126	272	262	70
Volume Left	148	126	0	0	0
Volume Right	270	0	0	0	70
cSH	520	1227	1700	1700	1700
Volume to Capacity	0.80	0.10	0.16	0.15	0.04
Queue Length 95th (ft)	192	9	0	0	0
Control Delay (s)	34.6	8.3	0.0	0.0	0.0
Lane LOS	D	A			
Approach Delay (s)	34.6	2.6		0.0	
Approach LOS	D				

Intersection Summary			
Average Delay	13.5		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

High School 6
6: Proposed Road & Bus Entrance

2027 Total Future PM Peak
HCM Unsignalized Intersection Capacity Analysis

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	20	20	136	166	10
Future Volume (Veh/h)	10	20	20	136	166	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.50	0.50	0.92	0.50
Hourly flow rate (vph)	20	40	40	272	180	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	542	190	200			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	542	190	200			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	95	97			
cM capacity (veh/h)	487	852	1372			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	60	312	200
Volume Left	20	40	0
Volume Right	40	0	20
cSH	681	1372	1700
Volume to Capacity	0.09	0.03	0.12
Queue Length 95th (ft)	7	2	0
Control Delay (s)	10.8	1.2	0.0
Lane LOS	B	A	
Approach Delay (s)	10.8	1.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection: 1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	LT
Maximum Queue (ft)	117	300	674	691	265	299	406	582	621	411	212	248
Average Queue (ft)	52	83	415	434	144	177	207	235	254	38	96	140
95th Queue (ft)	99	273	635	657	329	273	338	483	503	218	199	225
Link Distance (ft)			2013	2013				1540	1540			1156
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	300	300			265	415	415			450	225	
Storage Blk Time (%)		0	18	24	1		0	1	2	0	0	1
Queuing Penalty (veh)		1	15	47	4		0	5	2	0	0	4

Intersection: 1: Village Parkway/Stafford Plaza Drive & US Route 17

Movement	NB	NB	SB	SB	SB	SB
Directions Served	R	R	L	L	T	R
Maximum Queue (ft)	145	124	196	239	339	256
Average Queue (ft)	72	24	67	71	94	90
95th Queue (ft)	131	83	158	172	235	209
Link Distance (ft)					488	
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	500	500	250	250		250
Storage Blk Time (%)			0	0	1	1
Queuing Penalty (veh)			0	2	5	3

Intersection: 2: Proposed Road/Summer Breeze Lane & Truslow Road

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	L	LTR	LTR
Maximum Queue (ft)	2	18	54	71	37
Average Queue (ft)	0	1	17	29	12
95th Queue (ft)	2	11	45	58	36
Link Distance (ft)	597			570	435
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Truslow Exit Only & Truslow Road

Movement	NB
Directions Served	LR
Maximum Queue (ft)	146
Average Queue (ft)	54
95th Queue (ft)	108
Link Distance (ft)	332
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Proposed Road & Northern Entrance

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	50	4
Average Queue (ft)	13	0
95th Queue (ft)	41	3
Link Distance (ft)		
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	300	300
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Proposed Road & Southern Entrance

Movement	EB	NB	SB	SB
Directions Served	LR	L	T	R
Maximum Queue (ft)	223	64	2	2
Average Queue (ft)	62	12	0	0
95th Queue (ft)	162	43	2	2
Link Distance (ft)	530		447	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		300		300
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Proposed Road & Bus Entrance

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	44
Average Queue (ft)	17	4
95th Queue (ft)	43	23
Link Distance (ft)	734	447
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 88

Appendix E

SIDRA Analysis of 2027 Total Conditions

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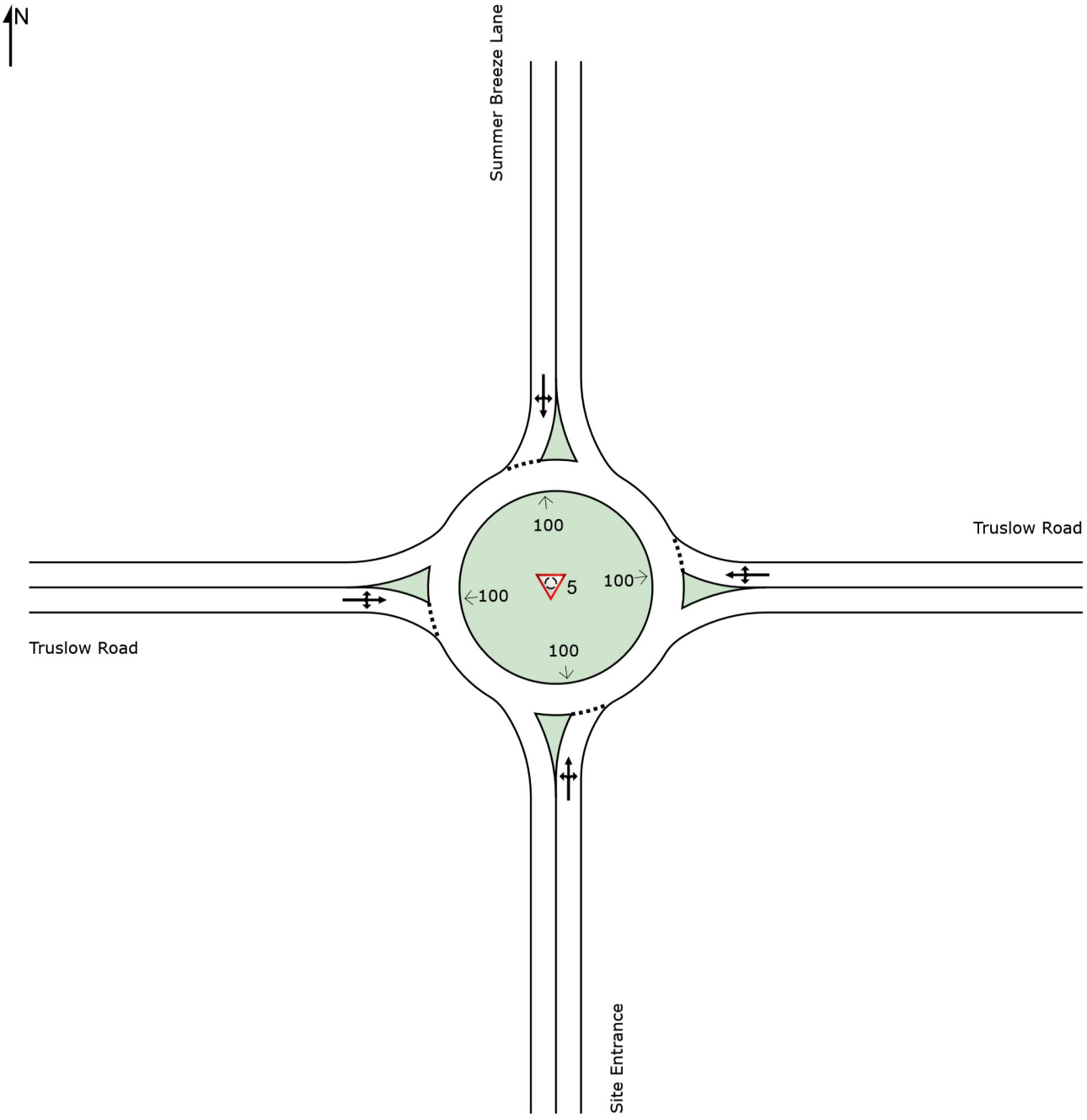
SITE LAYOUT

Site: 5 [Truslow Rd-Summer Breeze Ln - 2027 AM (Site Folder: General)]

Stafford High School TIA
2027 AM - Truslow Rd/Summer Breeze Ln
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 5 [Truslow Rd-Summer Breeze Ln - 2027 PM (Site Folder: General)]

Stafford High School TIA
2027 AM - Truslow Rd/Summer Breeze Ln
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Site Entrance														
3	L2	20	0.0	40	0.0	0.160	5.5	LOS A	0.9	23.6	0.60	0.46	0.60	34.3
8	T1	1	0.0	2	0.0	0.160	5.5	LOS A	0.9	23.6	0.60	0.46	0.60	34.2
18	R2	53	0.0	106	0.0	0.160	5.5	LOS A	0.9	23.6	0.60	0.46	0.60	33.2
Approach		74	0.0	148	0.0	0.160	5.5	LOS A	0.9	23.6	0.60	0.46	0.60	33.5
East: Truslow Road														
1	L2	48	0.0	96	0.0	0.216	4.6	LOS A	1.4	34.8	0.21	0.08	0.21	34.5
6	T1	136	3.0	148	3.0	0.216	4.7	LOS A	1.4	34.8	0.21	0.08	0.21	34.4
16	R2	33	0.0	36	0.0	0.216	4.6	LOS A	1.4	34.8	0.21	0.08	0.21	33.5
Approach		217	1.9	280	1.6	0.216	4.6	LOS A	1.4	34.8	0.21	0.08	0.21	34.3
North: Summer Breeze Lane														
7	L2	15	0.0	16	0.0	0.018	3.5	LOS A	0.1	2.2	0.41	0.23	0.41	33.7
4	T1	1	0.0	2	0.0	0.018	3.5	LOS A	0.1	2.2	0.41	0.23	0.41	33.6
14	R2	1	0.0	1	0.0	0.018	3.5	LOS A	0.1	2.2	0.41	0.23	0.41	32.7
Approach		17	0.0	19	0.0	0.018	3.5	LOS A	0.1	2.2	0.41	0.23	0.41	33.7
West: Truslow Road														
5	L2	2	0.0	2	0.0	0.596	10.1	LOS B	5.4	136.9	0.49	0.28	0.49	32.7
2	T1	392	3.0	426	3.0	0.596	10.2	LOS B	5.4	136.9	0.49	0.28	0.49	32.6
12	R2	150	0.0	300	0.0	0.596	10.1	LOS B	5.4	136.9	0.49	0.28	0.49	31.7
Approach		544	2.2	728	1.8	0.596	10.2	LOS B	5.4	136.9	0.49	0.28	0.49	32.2
All Vehicles		852	1.9	1175	1.5	0.596	8.1	LOS A	5.4	136.9	0.43	0.25	0.43	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 5 [Truslow Rd-Summer Breeze Ln - 2027 AM (Site Folder: General)]

Stafford High School TIA
2027 AM - Truslow Rd/Summer Breeze Ln
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Site Entrance														
3	L2	15	0.0	30	0.0	0.091	3.7	LOS A	0.5	12.4	0.33	0.17	0.33	35.2
8	T1	1	0.0	2	0.0	0.091	3.7	LOS A	0.5	12.4	0.33	0.17	0.33	35.1
18	R2	39	0.0	78	0.0	0.091	3.7	LOS A	0.5	12.4	0.33	0.17	0.33	34.1
Approach		55	0.0	110	0.0	0.091	3.7	LOS A	0.5	12.4	0.33	0.17	0.33	34.4
East: Truslow Road														
1	L2	159	0.0	318	0.0	0.328	5.7	LOS A	2.2	56.1	0.18	0.06	0.18	32.9
6	T1	93	7.0	101	7.0	0.328	5.8	LOS A	2.2	56.1	0.18	0.06	0.18	32.7
16	R2	12	0.0	13	0.0	0.328	5.7	LOS A	2.2	56.1	0.18	0.06	0.18	31.9
Approach		264	2.5	432	1.6	0.328	5.7	LOS A	2.2	56.1	0.18	0.06	0.18	32.8
North: Summer Breeze Lane														
7	L2	20	5.0	22	5.0	0.027	4.2	LOS A	0.1	3.6	0.53	0.34	0.53	33.2
4	T1	1	0.0	2	0.0	0.027	3.9	LOS A	0.1	3.6	0.53	0.34	0.53	33.2
14	R2	1	0.0	1	0.0	0.027	3.9	LOS A	0.1	3.6	0.53	0.34	0.53	32.3
Approach		22	4.5	25	4.4	0.027	4.2	LOS A	0.1	3.6	0.53	0.34	0.53	33.1
West: Truslow Road														
5	L2	1	0.0	1	0.0	0.418	8.0	LOS A	2.8	69.9	0.60	0.48	0.60	33.7
2	T1	105	2.0	114	2.0	0.418	8.1	LOS A	2.8	69.9	0.60	0.48	0.60	33.6
12	R2	160	0.0	320	0.0	0.418	8.0	LOS A	2.8	69.9	0.60	0.48	0.60	32.7
Approach		266	0.8	435	0.5	0.418	8.0	LOS A	2.8	69.9	0.60	0.48	0.60	32.9
All Vehicles		607	1.6	1002	1.0	0.418	6.4	LOS A	2.8	69.9	0.39	0.26	0.39	33.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

COMPREHENSIVE PLAN COMPLIANCE REVIEW

APPLICATION

OCTOBER 2018

Stafford County Department of Planning & Zoning

1300 Courthouse Road
P.O. Box 339
Stafford, VA 22555-0339

Phone: 540-658-8668
Fax: 540-658-6824

www.staffordcountyva.gov

STAFFORD COUNTY
Department of Planning and Zoning

NOTICE

Stafford County treats all applications and applicants equally. The County does not discriminate against religion, or on the basis of race, sex, age, national origin, or disability, in its planning, permitting, utilities, and land use processes.

Under the laws of the United States and the Commonwealth of Virginia, no government may discriminate against any religion or on the basis of race, sex, age, national origin, or disability, in its planning, permitting, utilities, and land use processes.

Under the Religious Land Use and Institutionalized Persons Act ("RLUIPA"), no government may apply its zoning or land use laws, or its policies and procedures in a manner that unjustifiably imposes a substantial burden on the religious exercise of a person, assembly, or institution.

RLUIPA also provides that no government may apply its zoning or land use laws in a manner that treats a religious assembly or institution on unequal terms with a non-religious institution or assembly.

Finally, RLUIPA provides that no government may impose or implement a land use regulation in a manner that discriminates against a religious assembly or institution.

Stafford County does not discriminate in its planning, permitting, utilities, and land use processes, practices, and policies. Stafford County treats all applications and applicants equally.

STAFFORD COUNTY
Department of Planning and Zoning

Application Submittal Checklist

☑ Completed **"Project Information & Primary Contacts"** form (Pages 3 & 4)

☑ Signed **"Statements of Understanding"** from the owner(s) and applicant (Page 5)

☑ Completed **"General Information"** sheet (Pages 6 & 7)

☑ Completed **"Review Fee Calculation"** sheet and appropriate fees payable to "County of Stafford" and "Virginia Department of Transportation" (if applicable) (Page 8)

☑ Completed **"List of Adjoining Property Owners"** (Pages 9 - 17)

☑ **Site Layout Plans** (12 Sets)

Applications for the **Extension of Water and/or Sewer outside the Urban Services Area** shall also include:

☐ Conceptual sewer and/or water line layout plan

Applications for **Telecommunication Facilities** shall also include:

☐ Propagation Maps showing the existing and proposed network coverage area (12 color copies)

☐ Profile or elevation views of the Telecommunication facility or structure being used to support telecommunication equipment, showing all proposed and future antenna locations (12 sets)

RECEIVED	OFFICIALLY SUBMITTED
DATE:_____ INITIALS_____	DATE:_____ INITIALS_____

Optional Application Materials:

Although not required, the following additional materials are requested to be included with the initial application submission, if available, to assist in the review process.

1. Electronic Version of any plans, surveys, and illustrations (a pdf on a CD, DVD, sent via email, or through ftp site is acceptable)

STAFFORD COUNTY
Department of Planning and Zoning

Project Information & Primary Contacts

PROJECT INFORMATION — PROJECT # COM21154253

Stafford County Public Schools - High School #6 (new)
PROJECT NAME

Not Applicable
ADDRESS (IF AVAILABLE)

Parcel 36-37 (portion) and 44 61A (portion)
TAX MAP /PARCEL(S)

Between Warrenton Road & Truslow Road at Stafford Plaza Drive
LOCATION OF PROJECT

SECTION: 86.3846
TOTAL SITE ACREAGE: A-1
ZONING DISTRICT

APPLICANT/AGENT (Provide attachment if Applicant and Agent differ) — Primary Contact Person ☐

Chris Fulmer, Assistant Superintendent
NAME

Stafford County Public Schools
COMPANY

31 Stafford Avenue — Stafford — VA — 22554
ADDRESS — CITY — STATE — ZIP

540-658-6000 — 540-658-6600 — fulmercr@staffordschools.net
PHONE NUMBER — FAX NUMBER — EMAIL ADDRESS

OWNER (Provide attachments if multiple owners)* — Primary Contact Person ☐

Ward Corporation (Parcel 36-37; fronting Truslow Road)
NAME

Ward Corporation
COMPANY

1300 PICCARD DRIVE STE 150 — Rockville — MD — 20850-4322
ADDRESS c/o Jason Hickman, Esq. — CITY — STATE — ZIP

703-565-5137 — 703-583-6066 — jeh@comptonduling.com
PHONE NUMBER — FAX NUMBER — EMAIL ADDRESS

PROFESSIONAL (Engineer, Surveyor, etc.) — Primary Contact Person ☐

Paul Klee
NAME

Grimm & Parker
COMPANY

8609 Westwood Center Drive — Tysons — VA — 22182
ADDRESS — CITY — STATE — ZIP

703-903-9100 — pklee@gparch.com
PHONE NUMBER — FAX NUMBER — EMAIL ADDRESS

*See Attachment A (page 4) for additional owner.

Attachment A - Additional Owner

OWNER (Provide attachments if multiple owners)			Primary Contact Person ☐
Stafford E&A LLC (Parcel 44-61A; fronting Route 17)			C T Corporation System
NAME			COMPANY
1221 Main Street, Suite 1000	Columbia	SC	29201-0000
ADDRESS	CITY	STATE	ZIP
PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	

STAFFORD COUNTY
Department of Planning and Zoning

Statements of Understanding

I, as owner/co-owner of the property subject to this application, do hereby certify that I have read and understand the requirements for the submission of comprehensive plan compliance for review and approval as provided under the requirements and applicable provisions of Section 15.2-2232 of the Code of Virginia and the Stafford County Comprehensive Plan.

N/A
Signature of Owner/Co Owner — Printed Name — Date

N/A
Signature of Owner/Co Owner — Printed Name — Date

N/A
Signature of Owner/Co Owner — Printed Name — Date

*** Applicant is not the owner, but applicant has made the owner aware of this pending application.**
I, as applicant or agent for the owner(s) of the property subject to this application, do hereby certify that I have submitted this application for comprehensive plan compliance for review and approval as provided under the requirements and applicable provisions of Section 15.2-2232 of the Code of Virginia and the Stafford County Comprehensive Plan.

Signature of Applicant/Agent — Chris Fulmer (Printed Name) — 12/17/2021 (Date)

* Additional sheets may be used, if necessary.

STAFFORD COUNTY
Department of Planning and Zoning

General Information

CLEARLY INDICATE ALL INFORMATION THAT APPLIES TO THIS PROJECT:

NAME OF PROJECT: High School #6 (new) SECTION: _____

Is this application submitted in conjunction with another application? ☐ Yes ☒ No

If YES, application name or number (if available): N/A

COMPREHENSIVE PLAN LAND USE DESIGNATION: Suburban

FEATURE REQUIRING REVIEW FOR COMPLIANCE WITH THE COMPREHENSIVE PLAN:

- ☐ Extension of sewer outside of the Urban Service Area (complete additional information)
- ☐ Telecommunication facility or collocation of telecommunication antennas on a structure which is not a telecommunication facility. (complete additional information)
- ☑ New or relocation of a street, connection or change to existing street, not identified on the Transportation Plan or not shown on a Preliminary Subdivision or Site Plan approved by the Planning Commission.
- ☐ Public Park or Area
- ☑ Public Building or Structure
- ☐ Public Utilities Facilities
- ☐ Public Service Corporation Facility
- ☐ Other: _____

DETAILED DESCRIPTION AND LOCATION OF PROJECT/FEATURE:

High School #6 is planned to house up to 2,150 students and serve grades nine through twelve. This project includes the construction of the school building, outbuildings, parking lots, and athletic fields to include bleachers, stadium, and track, as well a public street for access from Route 17 and a sanitary sewer connection. HS#6 is included in the Adopted Stafford County FY2022-2031 Capital Improvement Program (page 144), the Stafford County Comprehensive Plan 5-Year Update (page 6-43), and the Stafford County School Board Approved FY2023-32 Capital Improvement Plan (page 11). This Project will be located approximately 0.8 miles east of Poplar Road and just north of the intersection with Warrenton Road (Route 17) and Stafford Plaza Drive. It backs to Truslow Road to the North. A request may be forthcoming for a conditional use permit, if the school building exceeds the allowable maximum building height. **(See Attachment B on page 18 for continued project description).**

COMPLETE ADDITIONAL INFORMATION IF APPLICABLE:

FOR EXTENSION OF SEWER OUTSIDE OF THE URBAN SERVICE AREA:

Number of lots connecting onto sewer: _____

Linear feet from existing sewer: _____

Connects to existing sewer outside of the Urban Service Area? ☐ Yes ☐ No

Will sewer extend outside the limits of the site? ☐ Yes ☐ No

If yes, how many existing dwellings would have access to the sewer? _____

Pump station required? ☐ Yes ☐ No

Type of proposed sewer:

☐ Gravity

☐ Low Pressure

Type: ☐ Grinder

☐ Ejector

☐ Other: _____

FOR TELECOMMUNICATION FACILITIES:

☐ New telecommunication facility

Height of tower: _____

Type of tower: ☐ Monopole

☐ Self-supporting lattice

☐ Guide wire

☐ Stealth

☐ Other; _____

☐ Collocation on existing structure other than a telecommunication facility

Type of structure: _____

Height of structure (without antennas): _____

Total height of structure with antennas (not including lightning rod): _____

Number of antennas: _____

Telecommunication ground equipment? ☐ Yes ☐ No

Within existing compound? ☐ Yes ☐ No

Type of ground equipment: ☐ Unmanned shelter

☐ Cabinets

Dimensions of telecommunication ground equipment: _____

Height of the telecommunication ground equipment: _____

STAFFORD COUNTY
Department of Planning and Zoning

Review Fee Calculations

A. Application Fee:	$ 300.00
B. Technology Fee (Application Fee x 2.75% or 0.0275).....	$ 8.25
TOTAL (Add lines A and B).....	**$ 308.25**

MAKE CHECK PAYABLE TO "STAFFORD COUNTY"

Note: The application fees are for the administrative process and review of this application and do not constitute an approval.

STAFFORD COUNTY
Department of Planning and Zoning

List of Adjoining Property Owners

Provide a list of the owners as shown on the current real estate tax assessment books of all abutting properties and properties immediately across the street or road from the property subject to this application. If the application applies to only a portion of a parcel, the entire parcel must be the basis for the below listing.

Provide additional pages if needed.

36B 2 8	HOWDERSHELT MATTHEW L & KRISTY L
TAX MAP / PARCEL	NAME
1544 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 2 7	HILL KYLE B & MONICA Y
TAX MAP / PARCEL	NAME
9 Cool Breeze Way	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 2 6	STILTNER ROGER L & LINDA C
TAX MAP / PARCEL	NAME
10 Cool Breeze Way	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

STAFFORD COUNTY
Department of Planning and Zoning

36B 1 5	HAMMONS CARRIE CANNON & MICAH WILLIA
TAX MAP / PARCEL	NAME
1496 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 1 4	HUNLEY DAVID F & SONYA L
TAX MAP / PARCEL	NAME
1480 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 1 3	MARRS JONATHAN D & NICOLE D
TAX MAP / PARCEL	NAME
1464 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 1 2	BARAHONA YOVANY & SANDRA ILBEA
TAX MAP / PARCEL	NAME
1448 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

STAFFORD COUNTY
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36B 2 10	FERENCE LISA
TAX MAP / PARCEL	NAME
15 Summer Breeze Lane	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36B 2 9	MORRISON GEORGE W & CYNTHIA SCHAULAN
TAX MAP / PARCEL	NAME
4 Eddy Stone Court	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36 30 1	HENNEBURY REED KENNETH & LINDA S
TAX MAP / PARCEL	NAME
1407 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

36 30 2	NORRIS DENNIS S
TAX MAP / PARCEL	NAME
1399 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

STAFFORD COUNTY
Department of Planning and Zoning

36 30	KOCH DANIEL AKIRA & KOCH PEREZ MONICA DEL PILAR
TAX MAP / PARCEL	NAME
1742 SEAGULL CT APT 403	
MAILING ADDRESS	
Reston	VA 20194
CITY	STATE ZIP

36 30 4	MILLS LEWIS EARL & TINA LOUISE
TAX MAP / PARCEL	NAME
1385 Truslow Road	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 3 66	FRIGA STEVEN L JR & JILLIAN DENISE
TAX MAP / PARCEL	NAME
17 Baldwin Drive	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 3 65	KIRSTEIN ALEC L & SARA N
TAX MAP / PARCEL	NAME
PSC 557	
MAILING ADDRESS	
FPO	AP 96379-0006
CITY	STATE ZIP

STAFFORD COUNTY
Department of Planning and Zoning

44L 3 64	HARPINE JAMES FRANKLIN & VICTORIA AN
TAX MAP / PARCEL	NAME
13 BALDWIN DR	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 3 63	WASHINGTON WILLIAM CALVIN JR
TAX MAP / PARCEL	NAME
11 BALDWIN DR	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 3 62	MORRIS JEFFREY W & RHONDA M
TAX MAP / PARCEL	NAME
9 BALDWIN DR	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 3 61	AYCOCK STEPHEN R & PAMELA M
TAX MAP / PARCEL	NAME
7 BALDWIN DRIVE	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

STAFFORD COUNTY
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44L 3 60	ELLIOTT-SULLIVAN HILLARY ANNE & SULLIVAN MICHAEL ASHBY
TAX MAP / PARCEL	NAME
5 BALDWIN DR	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 2 32	VAUGHN MATTHEW ALLEN & JANDE NICOLE
TAX MAP / PARCEL	NAME
6 AMBER CT	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 2 31	PECKHAM ROBERT
TAX MAP / PARCEL	NAME
5 AMBER CT	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 2 26	JONES MICHAEL C & MALINDA RAE
TAX MAP / PARCEL	NAME
6 GABLE CT	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

STAFFORD COUNTY
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44L 2 25	MCGAR KRISTOPHER HAROLD & CHERYL LYN
TAX MAP / PARCEL	NAME
7 GABLE CT	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 2 24	STRAWN ROBERT D & ALICE M
TAX MAP / PARCEL	NAME
5 GABLE COURT	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

44L 1 B	CARDINAL FOREST HOMEOWNERS ASSOC
TAX MAP / PARCEL	NAME
PO BOX 7268	
MAILING ADDRESS	
FREDERICKSBURG	VA 22404-7268
CITY	STATE ZIP

44 62	SUMNER FALLS RUN LLC
TAX MAP / PARCEL	NAME
5110 NAHANT STREET	
MAILING ADDRESS	
BETHESDA	MD 20816-2336
CITY	STATE ZIP

STAFFORD COUNTY
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44 61A	STAFFORD E&A LLC
TAX MAP / PARCEL	NAME
1221 Main Street, Suite 1000	
MAILING ADDRESS	
COLUMBIA	SC 29201-0000
CITY	STATE ZIP

36 29	WARD CORPORATION
TAX MAP / PARCEL	NAME
1300 PICCARD DR STE 150	
MAILING ADDRESS	
ROCKVILLE	MD 20850-4386
CITY	STATE ZIP

36 37A	THE WARD GRANDCHILDREN IRREVOCABLE D
TAX MAP / PARCEL	NAME
1300 PICCARD DR STE 103	
MAILING ADDRESS	
ROCKVILLE	MD 20850-4386
CITY	STATE ZIP

36 28C	HAMILTON DAVID W & DOROTHY P TRSTES
TAX MAP / PARCEL	NAME
1330 WARRENTON RD	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

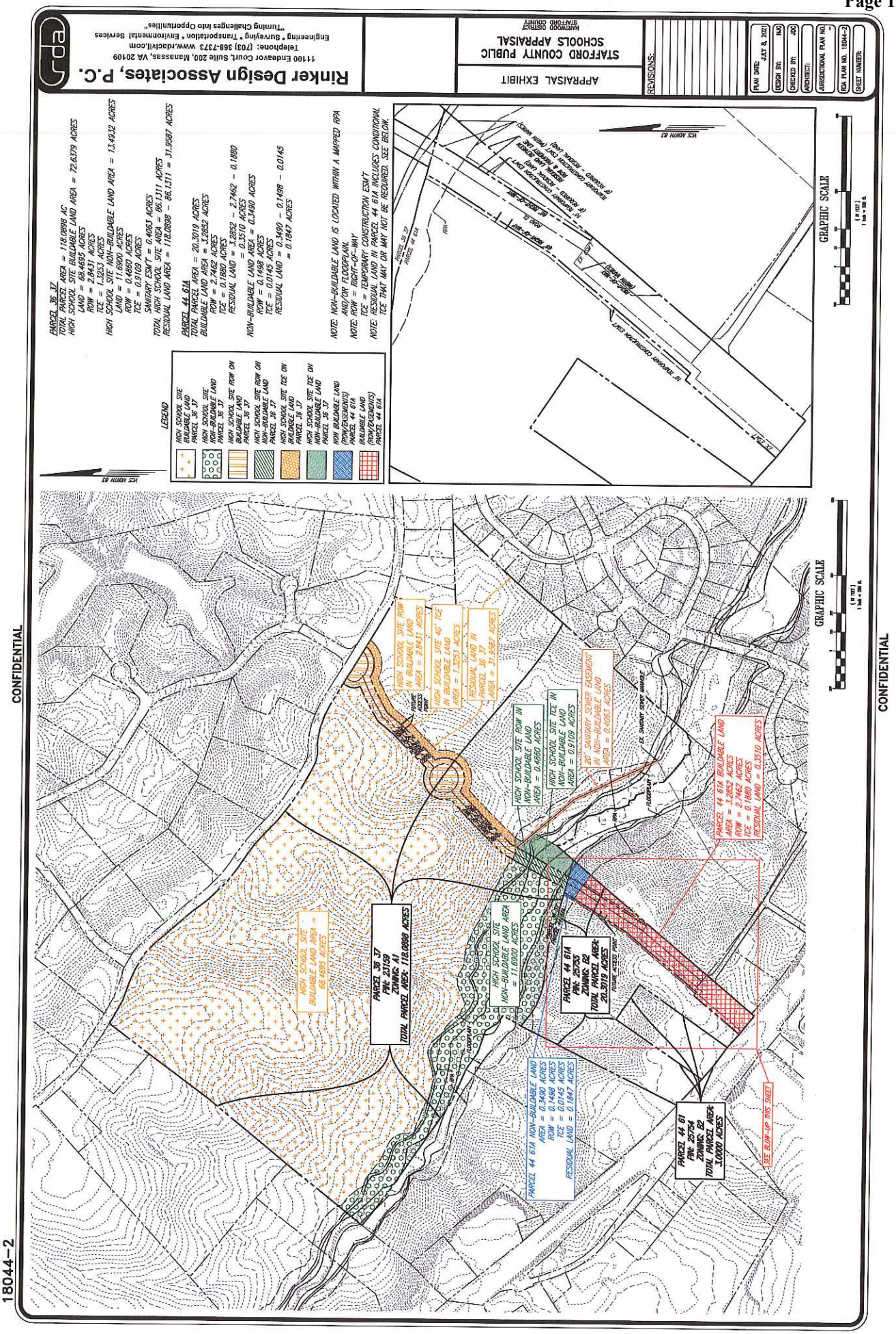
STAFFORD COUNTY
Department of Planning and Zoning

36 28A	TOLSON RAYMOND B JR & CHARLES N & JO
TAX MAP / PARCEL	NAME
534 ROCK HILL CHURCH ROAD	
MAILING ADDRESS	
STAFFORD	VA 22556
CITY	STATE ZIP

36 28E	TOLSON CHARLES N
TAX MAP / PARCEL	NAME
1551 TRUSLOW RD	
MAILING ADDRESS	
FREDERICKSBURG	VA 22406
CITY	STATE ZIP

TAX MAP / PARCEL	NAME
MAILING ADDRESS	
CITY	STATE ZIP

TAX MAP / PARCEL	NAME
MAILING ADDRESS	
CITY	STATE ZIP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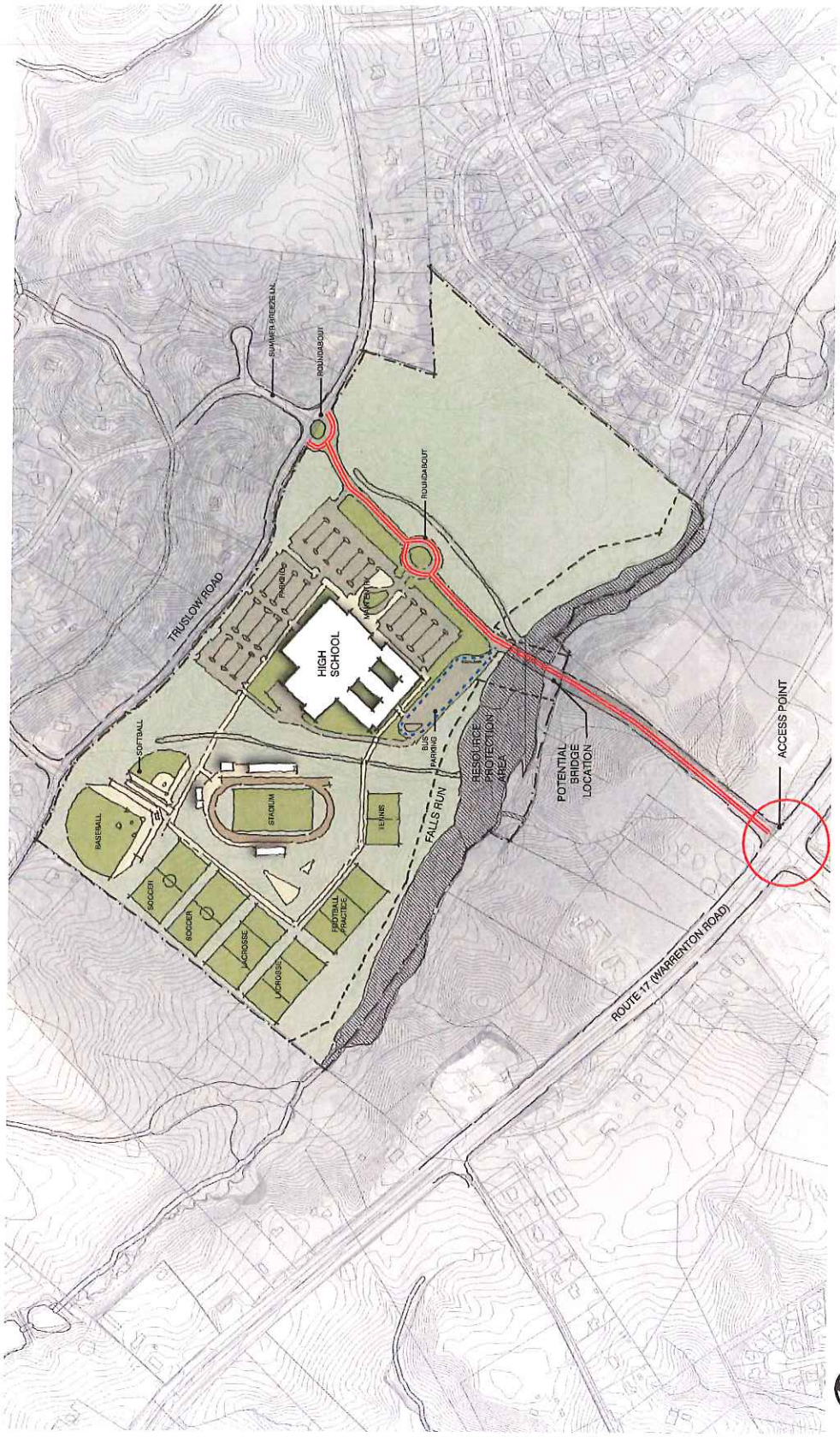
11100 Endeavor Court, Suite 200, Manassas, VA 20109
Telephone: (703) 368-7373 www.rdaciil.com
Engineering • Surveying • Transportation • Environmental Services
"Turning Challenges into Opportunities"
APPRAISAL EXHIBIT
STAFFORD COUNTY PUBLIC SCHOOLS APPRAISAL
HARTWOOD DISTRICT
STAFFORD COUNTY
REVISIONS:
PLAN DATE: JULY 9, 2021
DESIGN BY: MAS
CHECKED BY: JDC
ARCHITECT:
JURISDICTIONAL PLAN NO. -
RDA PLAN NO. 18044-2
SHEET NUMBER:
LEGEND
HIGH SCHOOL SITE BUILDABLE LAND PARCEL 35 37
HIGH SCHOOL SITE NON-BUILDABLE LAND PARCEL 35 37
HIGH SCHOOL SITE ROW ON BUILDABLE LAND PARCEL 35 37
HIGH SCHOOL SITE ROW ON NON-BUILDABLE LAND PARCEL 35 37
HIGH SCHOOL SITE TCE ON BUILDABLE LAND PARCEL 35 37
HIGH SCHOOL SITE TCE ON NON-BUILDABLE LAND PARCEL 35 37
NON BUILDABLE LAND (ROW/EASEMENTS) PARCEL 44 61A
BUILDABLE LAND (ROW/EASEMENTS) PARCEL 44 61A
PARCEL 35 37
TOTAL PARCEL AREA = 118.0898 AC
HIGH SCHOOL SITE BUILDABLE LAND AREA = 72.6379 ACRES
LAND = 68.4695 ACRES
ROW = 2.0431 ACRES
TCE = 1.3253 ACRES
HIGH SCHOOL SITE NON-BUILDABLE LAND AREA = 13.4932 ACRES
LAND = 11.6900 ACRES
ROW = 0.4880 ACRES
TCE = 0.9109 ACRES
SANITARY ESMT = 0.4063 ACRES
TOTAL HIGH SCHOOL SITE AREA = 86.1311 ACRES
RESIDUAL LAND AREA = 118.0898 - 86.1311 = 31.9587 ACRES
PARCEL 44 61A
TOTAL PARCEL AREA = 20.3719 ACRES
BUILDABLE LAND AREA = 1.2852 ACRES
ROW = 0.7462 ACRES
TCE = 0.1889 ACRES
RESIDUAL LAND = 0.3510 ACRES
NON-BUILDABLE LAND AREA = 0.7490 ACRES
ROW = 0.1498 ACRES
TCE = 0.0145 ACRES
RESIDUAL LAND = 0.3490 - 0.1498 - 0.0145 = 0.1847 ACRES
NOTE: NON-BUILDABLE LAND IS LOCATED WITHIN A MAPPED RPA AND/OR FLOODPLAIN.
NOTE: ROW = RIGHT-OF-WAY
TCE = TEMPORARY CONSTRUCTION ESMT.
NOTE: RESIDUAL LAND IN PARCEL 44 61A INCLUDES CONDITIONAL TCE THAT MAY OR MAY NOT BE REQUIRED. SEE BELOW.
GRAPHIC SCALE
HIGH SCHOOL SITE BUILDABLE LAND AREA = 68.4695 ACRES
PARCEL 35 37
PIN: 23759
ZONING: A1
TOTAL PARCEL AREA: 118.0898 ACRES
HIGH SCHOOL SITE NON-BUILDABLE LAND AREA = 11.6900 ACRES
HIGH SCHOOL SITE ROW IN NON-BUILDABLE LAND AREA = 0.4880 ACRES
HIGH SCHOOL SITE TCE IN NON-BUILDABLE LAND AREA = 0.9109 ACRES
HIGH SCHOOL SITE ROW IN BUILDABLE LAND AREA = 2.0431 ACRES
HIGH SCHOOL SITE 40' TCE IN BUILDABLE LAND AREA = 1.3253 ACRES
RESIDUAL LAND IN PARCEL 35 37 AREA = 31.9587 ACRES
25' SANITARY SEWER EASEMENT IN NON-BUILDABLE LAND AREA = 0.4063 ACRES
PARCEL 44 61A BUILDABLE LAND AREA = 1.2852 ACRES
ROW = 0.7462 ACRES
TCE = 0.1889 ACRES
RESIDUAL LAND = 0.3510 ACRES
PARCEL 44 61A
PIN: 25754
ZONING: B2
TOTAL PARCEL AREA: 20.3719 ACRES
PARCEL 44 61A NON-BUILDABLE LAND
AREA = 0.3490 ACRES
ROW = 0.1498 ACRES
TCE = 0.0145 ACRES
RESIDUAL LAND = 0.1847 ACRES
PARCEL 44 61
PIN: 25754
ZONING: B2
TOTAL PARCEL AREA: 1.0000 ACRES
SEE BLOW-UP THIS SHEET
CONFIDENTIAL
CONFIDENTIAL
18044-2



SITE PLAN
CONCEPT STUDY

SITE STUDIES
STAFFORD COUNTY SCPS

APRIL 09, 2021
PRJ177920007

A1

0' 100' 200' 400'
SCALE: 1" = 200' (24"x36")

Stantec
3001 Washington Boulevard Suite 600, Arlington, VA 22201-2247
(703) 465-6005 WWW.STANTEC.COM