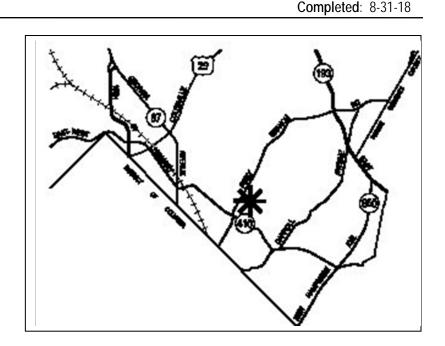
MCPB Item No. Date: 9/13/18

Takoma Park Middle School, Mandatory Referral, MR2018036

T\$	Tina Schneider, Senior Planner, Area 1 Division, <u>Tina.Schneider@montgomeryplanning.org</u> , 301.495.2101
	Katherine Mencarini, Senior Planner, Area 1 Division, <u>Katherine.Mencarini@montgomeryplanning.org,</u> 301.495.4549
$[\mathcal{N}]$	Michael Brown, Planner Supervisor, Area 1 Division, Michael.Brown@montgomeryplanning.org, 301.495.4566
	Mark Pfefferle, Interim Chief, Area 1 Division, <u>Mark.pfefferle@montgomeryplanning.org</u> , 301.495.4730

Description

- Mandatory Referral for two additions to the middle school to accommodate increasing enrollment;
- Mandatory Referral will add 59,662 square feet to the existing school;
- Current use: public school;
- Located at 7611 Piney Branch Road, Takoma Park, Maryland;
- 18.10-acre site zoned R-60 in the 2000
 Takoma Park Master Plan area;
- Applicant: Montgomery County Public Schools;
- Acceptance Date: June 13, 2018.



Summary

- Staff Recommendation: Approval to Transmit Comments
- The review of this Mandatory Referral includes a Preliminary/Final Forest Conservation Plan discussed in a separate staff report
- The Applicant is proposing to add and renovate to the existing Middle School to address the space and core
 deficiencies increasing capacity by 410 seats.
- The proposal includes two additions to the existing Middle School. One to the northeast side of the school, the other to the southeastern corner of the existing building.
- New ADA compliant ramps for access to the building and field on the western, north, and north-eastern sides of the building.
- Construct new bioretention systems to treat stormwater runoff.

Recommendations

Staff recommends approval to transmit the following comments to Montgomery County Public Schools:

- 1. Any mandatory referral submission for future school improvements at the subject school must include an updated traffic study if those improvements will increase the school's student core capacity to 1,306 students.
- 2. The Planning Board accepts the recommendations of the Montgomery County Department of Transportation ("MCDOT") in its letters dated August 30, 2018, and hereby incorporates them as conditions of the Mandatory Referral approval with the exception of comments 4 and 5. The Applicant must comply with the other recommendations as set forth in the letter, which may be amended by MCDOT provided that the amendments do not conflict with other conditions of the Mandatory Referral approval.
- 3. The Planning Board accepts the recommendations of the Maryland Department of Transportation ("MDSHA") in its letter dated April 13th, 2018, and hereby incorporates them as conditions of the Mandatory Referral approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MDSHA provided that the amendments do not conflict with other conditions of the Mandatory Referral approval.
- 4. MCPS should restripe the existing crosswalks on site and paint a new crosswalk pavement marking across the school driveway on Grant Avenue (opposite Chestnut Avenue).
- 5. As determined by the City of Takoma Park, MCPS should install crossing improvements for pedestrians at the Grant Avenue driveway. Improvements could include new pedestrian queuing areas on the northeast and southeast corners of the intersection. A high-visibility crosswalk pavement marking should be considered on the eastern leg of the intersection. MCPS should also coordinate with the City of Takoma Park, as this improvement is recommended as part of a Safe Routes to School improvement plan.
- 6. Additional and improved short-term bicycle parking capacity is recommended on the school site. Inverted-U Racks are the preferred bicycle parking type, as per the Planning Department Bicycle Parking Guidelines.
- 7. Crosswalks are recommended for installation along the following side streets that intersect with Piney Branch Road (MD 320) to improve pedestrian safety: Gist Avenue, Potomac Avenue, and Mississippi Avenue.
- 8. MCPS should work with MCDOT to install the 10-foot sidepath along the school's frontage on Piney Branch Road, as recommended in the 2018 Planning Board Draft of the *Bicycle Master Plan*.
- 9. MCPS should work with the school to assure ballfield access and use aligns with the periods of highest use and/or priorities of the middle school.
- 10. Should subdivision be required the property must dedicate right of way along Piney Branch Road such that there is 40' of dedicated width between the site and centerline.
- 11. The proposed development must comply with the Final Forest Conservation Plan MR2018036.

Introduction

This report consists of staff review of the Mandatory Referral for the proposed construction of two additions to the Takoma Park Middle School. The Montgomery County Public Schools (MCPS) submitted the application pursuant to Section 7-112 of the Regional District Act. In conjunction with the plan, a Preliminary Forest Conservation Plan has been reviewed. A Final Forest Conservation Plan must be submitted for staff review and approved prior to any clearing, grading, or demolition on the property. The Planning Board action on a Mandatory Referral is advisory, but the Board decision on the related Forest Conservation Plan is regulatory and binding.

Background

The existing school and site improvements were constructed in 1997-1998. The current capacity of the school is 939 students. Present enrollment is 1,090 students with a projected student population of 1,101 in the calendar year of 2018-2019. The school is deficient in classroom space and functionality. The Applicant is requesting to add two additions onto the existing building. Minor modifications to the external pedestrian circulation patterns are proposed including the construction of an ADA ramp on the eastern side of the school for access to the ballfields. The existing basketball court will be relocated to the southeastern corner of the school. Stormwater management will be provided on the eastern side of both additions. There will be minimal forest clearing and reforestation on the site.

Site Description

The Takoma Park Middle School at 7611 Piney Branch Road is seated on 18.10-acres owned by the Montgomery County Board of Education. The site contains an existing school, associated parking lots, athletic fields, play areas, and a portion of a linear stream valley park and forest. The site is in a residential neighborhood with single family residential (R60) properties on three sides. Two connecting parks abut the school. To the south adjacent to the tennis courts the City of Takoma Park owns a 2.29-acre parcel called Hefner Park. To the southeast is Takoma-Piney Branch Park owned by the Maryland National Capital Park and Planning Commission. Access roads to the school are Piney Branch Road to the north and Grant Avenue to the southwest. Travis Drive, a paper road runs along the south side of the property.

The student drop off, bus loop, and parking lot are located on the southwestern side of the site with access from both Grant Avenue and Piney Branch Road. Service entry occurs from the bus loop.



Figure 1: Vicinity Map



Figure 2: View of School from Piney Branch Road

Proposal

Montgomery County Public Schools (MCPS or Applicant) is proposing to expand the existing Takoma Park Middle School by adding two additions. Current enrollment is 1,090 students which is 151 beyond the capacity of what the school was constructed for (939 students). When completed, the new facility capacity will be 1,306 seats. There will be 6 shell space classrooms allowing for a total programmatic capacity of 1,500 seats. The project will be constructed in two phases to reduce impacts on the community, the student body, and reduce construction time. Walkway routes and athletic fields will be maintained to the extent possible during construction.

Phase I will be a 3-story extension on the northeast side of the school adjacent to Piney Branch Road. It will be a steel-framed structure with brick veneer over concrete masonry. The floor footprint of the addition will be 16,778 square feet, and the total square footage of the all three floors will be 48,076 square feet. The addition will house two science rooms, 14 classrooms, corridor connections, and six shell spaces for future growth. It will enclose a new courtyard allowing natural light into the new and existing building.

Phase II will include a 11,586 square foot addition on the southeastern side of the school. The addition will contain an auxiliary gymnasium, fitness weight room, health classroom, and a relocated music classroom.

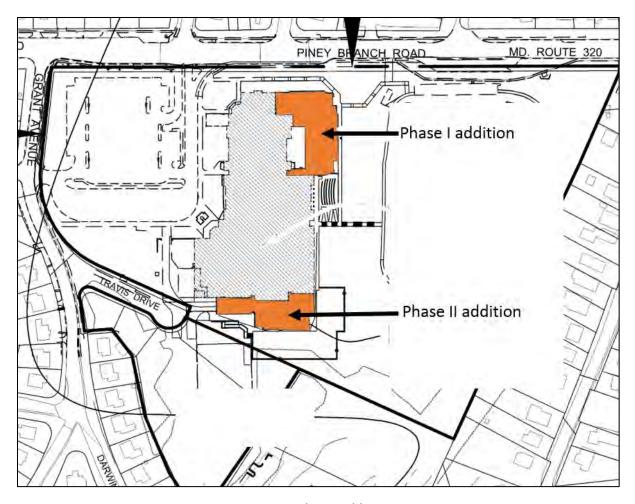


Figure 3: Proposed new additions

A public concern with of this project is related to the slopes between the eastern side of the school and the multi-purpose fields. They have been used by the community for decades for special events such as the Takoma Park Folk Festival and the Fourth of July fireworks. Notably, the slope is one the of region's favorite sledding spot. To address this, MCPS preserved two portions of the slope on both sides of the stairway to the ballfields (figure 4). North of the stairs built in raised terraced bleachers will be constructed into the slope. They will be accessible from the new ADA walkway. The bleacher seating area will be approximately 3,000 square feet. South of the stairway will be an open sledding area approximately 17,845 square feet, or 0.4 acres.

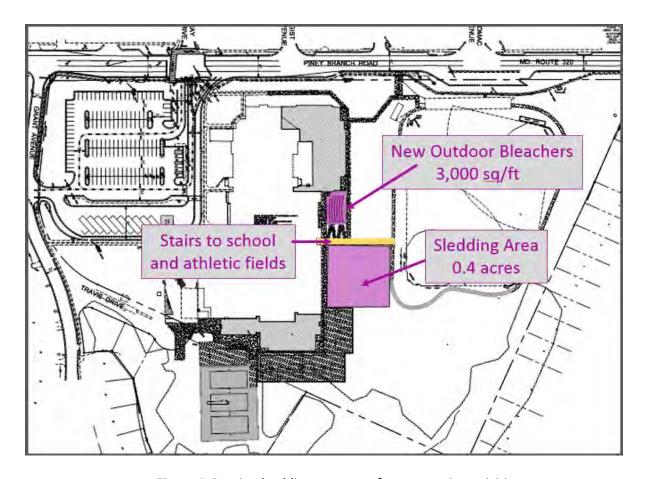


Figure 4: Retained public open space for community activities

Building Design

The proposed building height of 52 feet exceeds the maximum height allowable in the zone by 17 feet. However, it is the same height of the existing school and is compatible with the community. The school is screened on both the school property with landscaping and the properties across the street are lined with mature trees. Classroom windows arranged in groups relate to the residential scale of single family homes. A variety of masonry veneer colors, textures, and sizes are cohesive with the existing facades and support the massing of the design as an interaction of smaller building elements.

The proposed building on the northeastern corner of the school will be a three-story, steel-framed structure with brick veneer over concrete masonry block exterior walls. On each level corridor connections will create a circulation loop around a new courtyard space. The addition contains 14 classrooms, two science rooms and support spaces. It will also include a six-classroom shell space for future growth.

The second phase will include a one-story addition located on the southeastern side of the property. It will be steel-framed with brick veneer over concrete block exterior walls. Two existing corridors run parallel to the existing gymnasium will and will connect with the new addition to create new circulation around the existing gymnasium. The corridors will link with the addition which will contain an auxiliary gymnasium, a fitness weight room, a health classroom, and a relocated music room. The building will allow for the expansion of the cafeteria and instrumental music room. On the exterior, new basketball courts will be located to the east of the one-story addition

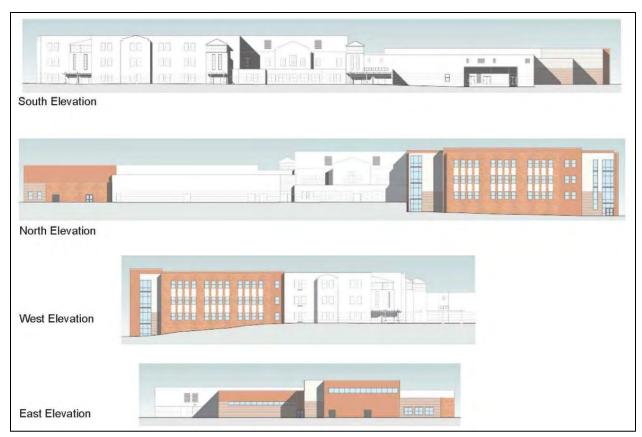


Figure 5: Conceptual Elevations



Figure 6: Northeastern view of proposed addition from Piney Branch Road



Figure 7: Southeastern view of proposed addition



Figure 8: View west from the ballfields

Community Outreach

The Applicant notified adjoining and confronting properties as well as homeowner and civic associations within a half-mile radius of the school. The most recent public meetings conducted by the Montgomery County Public Schools related to the schematic designs held on October 5, 2017 and October 19th, 2017.

According to MCDPS, the Division of Construction sent public meeting notifications to neighbors, and civic and homeowner's associations near the school. Participants included: Alicia Deeny, the Principal of Takoma Park Middle School and other school representatives; Kacy Kostiuk, City Council; Montgomery County Public Schools representatives; Roz Gigsby, Community Development Manager for the City of Takoma Park; representatives from SEI Architects; and a few community members.

Additional community meetings included:

Feasibility Meetings:

September 10, 2015 Facility Advisory Meeting (Public Work Session)
 September 16, 2015 Facility Advisory Meeting (Public Work Session)
 October 13, 2015 PTA Meeting (Public Work Session)

Design Meetings:

September 20, 2017 Pre-design meeting with City of Takoma Park
 October 5, 2017 Facility Advisory Meeting (Public Work Session)
 October 19, 2017 Facility Advisory Meeting (Public Work Session)

January 9, 2018 MCPS BOE mtg for preliminary plans presentation (public access)

February 8, 2018 Mtg with City of Takoma Park
 August 2, 2018 Mtg with City of Takoma Park

Future public interaction planned:

• September 5, 2018 Mtg with City of Takoma Park

Analysis

Master Plan Conformance

The Site is located within the boundaries of the 2000 *Takoma Park Master Plan a*rea. The proposed addition is in conformance with the Master Plan. The Master Plan's Community Facilities and Needs recommendations state: "Renovate existing facilities and provide new facilities and recreational programs for a wide range of ages, backgrounds, and interests" (p 8) and "Provide community facilities at appropriate locations to meet the human service, recreational, security, educational, and other needs of the diverse community" (p 71).

The Master Plan does not contain specific recommendations for this property, though it is included on the map of existing community facilities (p70).

Zoning Requirements

The intent of the R-60 Zone is to provide designated areas of the County for moderate density residential uses. The predominant use is residential detached houses. A limited number of other building types may be allowed under the optional method of development. The proposed project meets the use and development standards for the zone except the allowed maximum building height (See *Table 1: Conformance with R-60 Zone Development Standards*). The R-60 Zone Standard Method Development Standards Section 4.4.9.B.3 specify that the building height maximum is 35 feet. The proposed building height is 52 feet.

Table 1: Conformance with R-60 Zone Development Standards

	Required	Proposed
Minimum Lot Area	6,000 sf	789,114 sf
Minimum Main Building Setback from Street	25 feet	69.9 feet
Side Setback – Minimum	8 feet	73 feet
Side Setback – Sum of Side Setbacks	18 feet	175.8 feet
Rear Setback	20 feet	571.4 feet
Maximum Building Height	35 feet	52 feet
Maximum Lot Coverage	35%	14.3%

Design and Visual Impact

The proposed building height of 52 ft exceeds the maximum height allowable in the zone by 17 feet. However, the proposed addition design at three-stories is the same height of the existing school structure. The front of the building has a large setback of 69.9 feet, the side setbacks exceed the required setbacks by over 65 feet. There is some variation and modulation of the front façade to break down the overall mass, and mature trees provide screening both on this property and to the confronting properties across Piney Branch Road.

Transportation

School Location and Vehicular Access Points

The existing school is located on the east side of Piney Branch Road (MD 320), just east of the intersection of Piney Branch Road and Philadelphia Avenue (MD 410). The site has three vehicle access points; two on Piney Branch Road and one on Grant Avenue, opposite Chestnut Avenue. Staff and visitor parking is accessed from the southern driveway on Piney Branch Road. The bus loop is accessed from Grant Avenue. Grant Avenue also provides access to the staff and visitor parking lot. All onsite traffic exits the site via the northern driveway on Piney Branch Road. No egress movements are permitted on Grant Avenue. No changes the site access points are proposed as part of this expansion.

Master-Planned Roadways and Bikeways

In accordance with the 2000 *Takoma Park Master Plan*, the 2018 Planning Board Draft of the Bicycle *Master Plan*, and the 2018 *Master Plan of Highways and Transitways*, the master-planned transportation facilities are designated below:

- 1. Piney Branch Road is recommended to be a two-lane arterial street, A-311, with an 80-foot wide right-of-way. Piney Branch Road along the school frontage varies currently from 56 to 61 feet of right-of-way. The posted speed limit on Piney Branch Road is 30 MPH. Buffered sidewalks are present on both sides of the roadway. A 10-foot wide sidepath is recommended on Piney Branch Road along the school frontage in the 2018 Planning Board Draft of the *Bicycle Master Plan*.
- 2. Grant Avenue is a secondary residential street with a 50-foot wide right-of-way. It has one lane in each direction. Buffered sidewalks are present on the school side (north) of the roadway. The posted speed limit on the road is 25 MPH.
- 3. Sligo Avenue is a master-plan recommended minor arterial with a 50-foot wide right-of-way in the 2018 *Master Plan of Highways and Transitways*. Sidewalks are present on both sides of the street. The posted speed limit is 30 MPH.

4. Ray Drive is a secondary residential street with a 50-foot wide right of way. Buffered sidewalks are present on the south side of the street. The posted speed limit is 25 MPH.

Public Transit Service

Montgomery County RideOn bus provides transit service along Piney Branch Road. Routes 14 and 24 service the bus stop directly in front of the school in the northbound direction. The southbound bus stop of the pair is located just north of Ray Drive on the west side of the street.

Pedestrian and Bicycle Facilities

The existing sidewalks are as follows:

- Along Piney Branch Road buffered sidewalks exist on both sides. On the east (school) side, the sidewalks are 4ft in width and are buffered by a five-foot grass panel. The west side of the street has three-foot wide sidewalks with a grass panel that varies in width from 8-9ft.
- Along Grant Avenue, sidewalks are present only on the north (school) side. Between Piney Branch
 Road and the school driveway the sidewalks are 4ft in width and are buffered by a two-foot grass
 panel. East of the school driveway the sidewalks widen to 8ft and do not have a buffer.
- Ray Drive, immediately opposite the school's driveways on Piney Branch Road has sidewalks on the south side of the road. The sidewalks are 3.5ft in width and the buffer is approximately 2ft in width.

MCPS should replace the sidewalks along the school frontage on Piney Branch Road, an arterial street, with a 10-foot sidepath to implement the sidepath recommended in the 2018 Planning Board Draft of the *Bicycle Master Plan*. MCPS should work with MCDOT for the specific design elements.

The pedestrian counts performed for the transportation impact study recorded several pedestrians crossing at the intersection of Grant Avenue, Chestnut Avenue, and the school's southern driveway. Twenty-nine pedestrians entered the intersection in the morning peak hour and 22 in the afternoon peak hour. The east crossing is most crucial because it connects Chestnut Avenue to the school's sidewalk leading into the building entrance. Sixteen pedestrians crossed at this leg in the morning peak hour and 2 in the afternoon peak hour. This crossing is currently unmarked and does not provide ADA accessible curb ramps or pedestrian queuing space on either corner. The City of Takoma Park conducted a pedestrian safety audit for students walking to the school and made recommendations for sidewalks on Chestnut Avenue and crossing improvements on the eastern leg of the intersection. For that reason, Staff recommends MCPS work with the City of Takoma Park to improve this crossing for student safety. MCPS has committed to striping a new crosswalk across the driveway (northern crossing) to improve visibility of pedestrians and remind both pedestrians and motorist they are entering a potential conflict area.

MCPS proposed the following pedestrian and bicycle improvements:

- Forty new bicycle racks, which increases the current parking capacity from 40 to 80 total spaces.
 - o 16 new spaces at the school entrance,
 - o 16 new spaces at the ball fields, and;
 - 8 new spaces at the tennis courts.

- Several crosswalks across the school driveways are faded. MCPS has indicated they will restripe
 the crosswalks on site.
- MCPS will paint a new crosswalk across the southern driveway, this is also the northern leg of the intersection of Grant Avenue and Chestnut Avenue.

According the Bicycle Stress Map, the stress level for bicyclists is "moderate high" along Piney Branch Road between Eastern Avenue and Sligo Creek Parkway. The local streets that connect to Piney Branch Road have "very low" stress ratings. For 2016-2020 Subdivision Staging policy (SSP), bikeway improvements are required if the school generated 50 or more bicycle trips and within a quarter mile of an educational institute that have a Level of Traffic Stress/Stress Tolerance Level (LTS) worse than LTS-2 or "low". MCPS should work with MCDOT and MDSHA regarding bicycle infrastructure improvements to improve the off-site bicycle impact for cyclists along the substandard (higher than "low") bikeway segments along Piney Branch Road.

Local Area Transportation Review

A Transportation Impact Study was conducted on behalf of MCPS by Street Traffic Studies, Ltd. The study was first submitted on March 13, 2018 and later revised and accepted June 5, 2018. The number of peak-hour trips generated by the proposed expanded middle school is based trip-generation rates derived from the traffic data counted and analyzed at the existing Takoma Park Middle School with its current enrollment. The table below shows the additional trips generated by the expanded school within the weekday morning peak period and the afternoon dismissal peak hour of the school. The morning peak hour was between 7:30 and 8:30 AM and the afternoon peak hour was between 3:00 and 4:00 PM.

Table 1: Trips Generated

		Peak Hour Vehicle Trips		
Numbe	Morning	Afternoon		
Current Enrollment	1,098	584	188	
Trip Generation Rate		0.53	0.17	
Change in enrollment to be studied	402	214	69	

Source: Street Traffic Studies Transportation Impact Study prepared for MCPS.

The current enrollment of Takoma Park Middle School is 1, 098 students, and expansion will increase the capacity of the school to up to 1,500 students. Therefore, this transportation study analyzed the potential impact of adding 402 students to the school.

Under the 2016-2020 Subdivision Staging Policy (SSP), a traffic study was required because the number of morning or afternoon additional person trips exceed the new standard of 50 or more-person trips within the weekday peak hours.

Based on the traffic study results, the Highway Capacity Manual's (HCM) average intersection delay values (in seconds per vehicle) at the studied intersections are shown in the table below for the following traffic conditions:

- 1. <u>Existing</u>: Existing traffic conditions.
- 2. <u>Background</u>: The existing condition plus the trips generated from approved but unbuilt nearby developments.
- 3. <u>Total</u>: The existing condition plus the site-generated trips generated by the proposed school expansion to a core capacity of 1,500 students.

Table 2: Traffic Condition

Table 2. Hame condition							
	Avg. Vehicle	Traffic Condition					
Chardinal laborates	Delay Standard (sec.)	Avg. Vehicle Delay (sec.)					
Studied Intersection		Exis	ting	Backgı	round	То	tal
		AM	PM	AM	PM	AM	PM
MD 320 and Wessex Rd	80	21.4	23.4	21.4	23.4	21.9	22.0
MD 320 and Park Valley Rd	80	18.6	43.1	18.6	43.1	18.6	43.0
M 320 and Ray Dr	80	18.0	6.7	18.0	6.7	21.1	9.5
MD 320 and MD 410	80	25.5	24.3	25.8	24.5	25.8	24.6
Grant Ave and Chestnut Ave	80	4.6	3.3	4.6	3.3	5.5	3.9
Grant Ave and Holly Ave	80	7.3	7.3	7.3	7.3	7.4	7.4

Source: Street Traffic Studies Transportation Impact Study prepared for MCPS.

To satisfy, the LATR test under the 2016-2020 SSP:

- For the vehicular impact with 50 or more morning peak-hour vehicle trips at all studied intersections, the HCM delay values in the table above do not exceed the applicable standard of an overall intersection delay of 80 seconds/vehicle for the Silver Spring/Takoma Park Policy Area. Thus, no intersection improvements or other mitigation strategies are required.
- Fewer than 50 transit trips are estimated to be generated by the proposed project and therefore transit adequacy analysis was not required.
- Fewer than 50 bicycle trips estimated to be generated by the proposed project and therefore bicycle adequacy analysis was not required.
- Fewer than 50 pedestrian trips estimated to be generated by the proposed project and therefore pedestrian adequacy analysis was not required.

Policy Area Review

Under the 2016-2020 Subdivision Staging Policy, the transportation impact tax would be zero because the Montgomery County Office of the County Executive, County Register does not require the development impact tax for public schools.

ENVIRONMENT

Natural Resources Inventory

A Natural Resources Inventory and Forest Stand Delineation (420180710) was approved on December 1, 2017. The site is located within the Lower Sligo Creek watershed, a USE I-P designation, which drains to the Mainstem of Sligo Creek before entering the Anacostia River, then the Potomac River.

Forest Conservation Plan

The Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. See the Forest Conservation staff report (Part B) for a complete analysis.

Sustainable Design

The proposed additions are not required to be registered for Leadership in Energy & Environmental Design (LEED) certification, however, the addition will be designed in accordance with the 2014 MCPS Environmental Sustainability Management Plan. The following sustainable aspects of the project include:

- Using highly-reflective roof surfaces to reduce heat island effect and heat gain to the building
- Installing water conserving, low-flow plumbing fixtures
- Optimizing the energy performance of the building by providing a highly energy-efficient building envelope, a low energy consuming lighting system, and a heating, ventilation, and air conditioning (HVAC) system utilizing a water source heat pump coupled with a dedicated energy recovery outdoor air system
- Optimizing equipment selection, installation, and operation of HVAC equipment through enhanced commissioning of the building energy system
- Providing a high level of occupant control over individual lighting and thermal comfort to promote an enhanced indoor environment
- Using construction materials that are recycled and regionally manufactured
- Maximizing daylight in classrooms

Stormwater Management

On May 24, 2018 the Takoma Park Department of Public Works deemed the Stormwater Management Concept Application as "generally acceptable" with recommendations to address computations regarding Reduced Curve Numbers (RCN), stream channel protection (CPv), and groundwater recharge (Rev) volumes.

The project proposes 37,154 square feet of new impervious, however is providing stormwater treatment for 58,804 square feet of impervious area. No increases to the peak rate discharge from the property will occur for any storms up to and including the 100-YR storm. In addition to providing stormwater management for project, an existing erosion problem-a headcut forming on the north-east side of the property and outfall maintenance will be undertaken to reduce sediment laden runoff leaving the site.

Four micro-bioretention facilities, will be constructed to meet ESD to the maximum extent possible. Outfall maintenance is proposed to reduce sediment laden runoff leaving the site.



Figure 9 Proposed bioretention areas along the western slope

Noise

As noted in the plans submittal MCPS will comply with Montgomery County's noise ordinance, Section 31 (b) of the County Code which is consistent with the Montgomery County Department of Park and Planning Noise Guidelines.

Conclusion

Based on analysis of the proposal, Staff recommends approval to transmit the recommendations listed at the beginning of this report to MCPS.

Attachments

- A. Proposed site plans
- B. Traffic Study
- C. Circulation Plan
- D. Landscape Plans
- E. Photometric Plan
- F. City of Takoma Park Department of Public Works stormwater management application

TAKOMA PARK MIDDLE SCHOOL EXISTING PARKING TABULATION

STANDARD SPACES (9'x 18')..... ACCESSIBLE SPACES (8'x 18').... TOTAL EXISTING

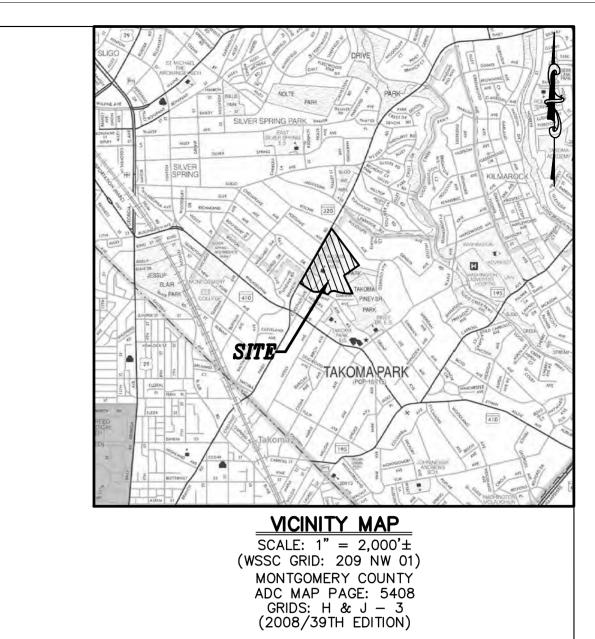
BUILDING COVERAGE

SITE AREA = 789,114 SF LIMITS OF DISTURBANCE = 184,933 SF EXISTING BUILDING FOOTPRINT = 84,641 SF PROPOSED ADDITION FOOTPRINT = 28,364 SF TOTAL BUILDING FOOTPRINT AREA = 113,005 SF TOTAL BUILDING COVERAGE = 14.3%

> GRAPHIC SCALE MUST BE USED (ORIGINAL SIZE = $30" \times 42"$) GRAPHIC SCALE

> > (IN FEET) 1 inch = 50 ft.

	REQUIRED	PROPOSED
MAIN BUILDING SETBACK FROM STREET	25 FEET	69.9 FEET
SIDE YARD-ONE SIDE	8 FEET	73 FEET
SIDE YARD-SUM OF BOTH SIDES	18 FEET	175.8 FEET
REAR YARD	20 FEET	571.4 FEET
ACCESSORY BUILDING SETBACK FROM STREET	65 FEET	NA
ACCESSORY BUILDING SETBACK FROM SIDE	12 FEET	NA
ACCESSORY BUILDING SETBACK FROM REAR	12 FEET	NA
MAX. BUILDING HEIGHT	35 FEET / 3 STORIES	52 FEET / 3 STORIES
MAXIMUM COVERAGE	25%	14.3%



EXISTING BOUNDARY LINE ----EXISTING PROPERTY LINE -----EXISTING CONTOUR EXISTING BENCHMARK EXISTING SEWER MANHOLE EXISTING WATER MANHOLE EXISTING STORM MANHOLE

EXISTING TELEPHONE MANHOLE EXISTING ELECTRIC MANHOLE EXISTING GAS MANHOLE EXISTING SANITARY SEWER EXISTING WATER LINE EXISTING STORM DRAIN EXISTING UTILITY POLE EXISTING OVHD UTILITY LINE — OHU— EXISTING U/G ELECTRIC LINE EXISTING U/G GAS LINE EXISTING U/G TELE LINE EXISTING U/G CABLE LINE —— C—— EXISTING U/G FIBER OPTIC EXISTING GAS VALVE EXISTING FIRE HYDRANT EXISTING WATER METER EXISTING LIGHT EXISTING SIGN EXISTING BOLLARD EXISTING RIPRAP EXISTING CHAIN LINK FENCE EXISTING WOOD FENCE

(SEE ARCH DWG'S) CONCRETE SIDEWALK LIGHT DUTY ASPHALT

HEAVY DUTY CONCRETE

SITE LIGHT (SEE MEP DWG'S) ACCESSIBLE RAMP

PROPOSED SEWER PROPOSED WATER PROPOSED ELECTRIC

TAKOMA PARK MIDDLE SCHOOL

ARCHITECT

9211 CORPORATE BLVD, SUITE 340 ROCKVILLE, MD 20850

CIVIL

ADTEK ENGINEERS

97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701

301-662-4408(P) 301-662-7484(F)

STRUCTURAL **ADTEK ENGINEERS**

97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701 301-662-4408(P) 301-662-7484(F)

MECH./ELECTRICAL/PLUMBING

JAMES POSEY ASSOCIATES

3112 LORD BALTIMORE DRIVE

BALTIMORE, MD 21244

301-265-6100(P) 301-298-9820(F)

CONSTRUCTION MANAGER

OWNER/APPLICANT MONTGOMERY COUNTY

PUBLIC SCHOOLS
45 WEST GUDE DRIVE,
SUITE 4300
ROCKVILLE, MARYLAND
20850-4038

ATTN: ROBBIE S. BADSTIBNER
Robbie_S_Badstibner@mcpsmd.org
TEL: 240.314.1018
FAX: 240.279.3003

I HEREBY CERTIFY THAT THESE DOCUMENTS ARE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO 26524, EXPIRATION DATE: 19 JULY 2019.

PRINTS ISSUED

3 DESIGN DEVELOPMENT 05/01/2018

3 65% CD TO MCPS 06/29/2018 DD IAC SUBMISSION 06/29/2018

SCHEMATIC DESIGN 01/12/2018

DESCRIPTION:

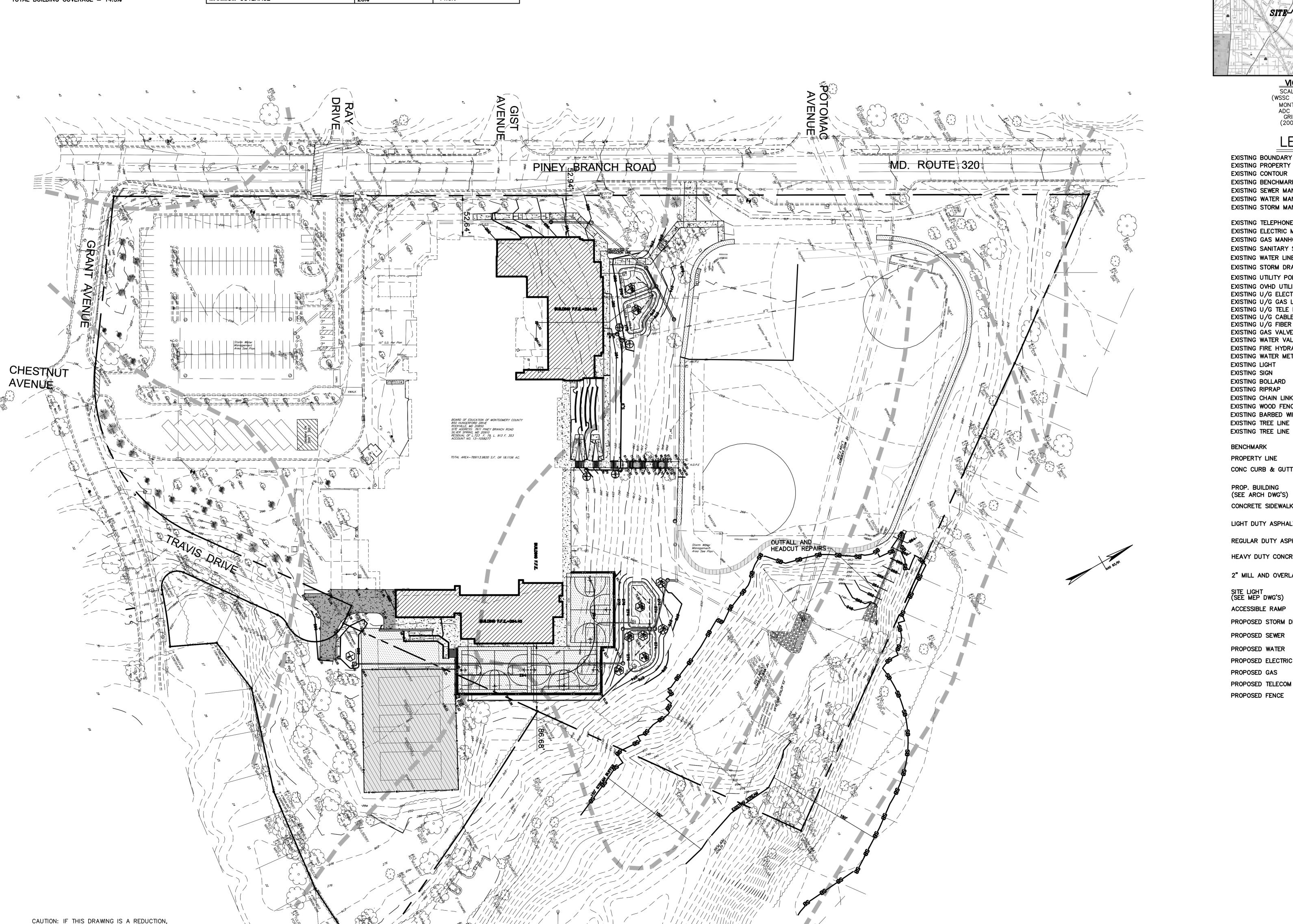
35% SUBMISSION

301-770-0177(P) 301-330-3224(F)

MANDATORY

SHEET NO:

03-MRPLAN-MR2018036-01



LEGEND

PROPERTY LINE CONC CURB & GUTTER

 \ominus

_____6**"**S_____

____8**"**W

REGULAR DUTY ASPHALT

2" MILL AND OVERLAY

PROPOSED STORM DRAIN

PROPOSED GAS PROPOSED TELECOM PROPOSED FENCE

ADDITION

MONTGOMERY COUNTY PUBLIC SCHOOLS

SHEET TITLE:

REFERRAL **DRAWING PLAN**

LOCAL AREA TRANSPORTATION REVIEW TAKOMA PARK MIDDLE SCHOOL MONTGOMERY COUNTY, MARYLAND

Prepared For:

Montgomery County Public Schools

March 13, 2018

Revised: June 5, 2018

Project Manager: David A. Nelson, P.E., P.T.O.E.

Mike Nalepa - Street Traffic Studies, Ltd.

STS Job No.: 6598

CONTENTS

PAG	ЗE
INTRODUCTION	l
EXISTING CONDITIONS 3	3
Roadway System Elements 3	}
Existing Traffic Volumes 5	
School Traffic Circulation and Queuing 8	}
BACKGROUND TRAFFIC ANALYSIS 9)
Planned Developments)
Trip Generation 9)
Trip Distribution)
SITE TRAFFIC ANALYSIS 14	ŀ
Trip Generation Analysis	Ļ
TRANSIT SYSTEM ADEQUACY)
PEDESTRIAN SYSTEM ADEQUACY)
BICYCLE SYSTEM ADEQUACY 27	7
CONCLUSIONS 28	}

EXHIBITS

	PAG	£
1	SITE LOCATION2	
2	EXISTING LANE USE4	
3	EXISTING TRAFFIC VOLUMES	
4	TRIPS GENERATED BY PLANNED DEVELOPMENTS	
5	BACKGROUND TRAFFIC VOLUMES	
6	SITE GENERATED TRIPS	
7	TOTAL TRAFFIC VOLUMES	
8	PEDESTRIAN/TRANSIT PEDESTRIAN/BIKE VOLUMES24	

APPENDICES

A	TRAFFIC STUDY SCOPE OF WORK AGREEMENT
В	VEHICLE TURNING MOVEMENT COUNTS
С	CAPACITY CALCULATIONS - EXISTING CONDITIONS
D	EXISTING AND PROPOSED SITE PLANS AND SCHOOL BOUNDARY
Е	CAPACITY CALCULATIONS - BACKGROUND CONDITIONS
F	CAPACITY CALCULATIONS - TOTAL CONDITIONS
G	CROSSWALK EVALUATIONS

INTRODUCTION

Montgomery County Public Schools (MCPS) is proposing to expand the existing Takoma Park Middle School located at 7611 Piney Branch Road. The existing school has an enrollment of 1,098 students, for the current 2017-18 academic year, and the proposed expansion will result in a school with a core capacity of 1,500 students at completion, a 402 student increase. The site is located in the northeast quadrant of the Piney Branch Road/Grant Avenue intersection as shown on Exhibit 1.

Street Traffic Studies, Ltd. has been retained to undertake the required traffic study under the provisions of the *Local Area Transportation Review and Transportation Policy Area Review Guidelines* for a site generating more than 50 peak hour person trips.

The purpose of the traffic study is to evaluate the adequacy of the transportation facilities that are available to serve the site in accordance with the procedures outlined in the *Local Area Transportation Review and Transportation Policy Area Review Guidelines* as adopted by the Planning Board. Current traffic data was acquired at six (6) intersections of public streets in the vicinity of the site. For purposes of this analysis, data collected at the existing Takoma Park Middle School was used to determine the trip generation characteristics for this school. The Silver Spring/Takoma Park policy area is within the Orange category and consequently the Highway Capacity Manual and Critical Lane Volume procedures were used to evaluate intersection levels of service. The Traffic Study Scope of Work Agreement is contained in Appendix A.

Since this project is being built solely as a public facility by the Montgomery County government it is not required to pay a transportation impact tax.

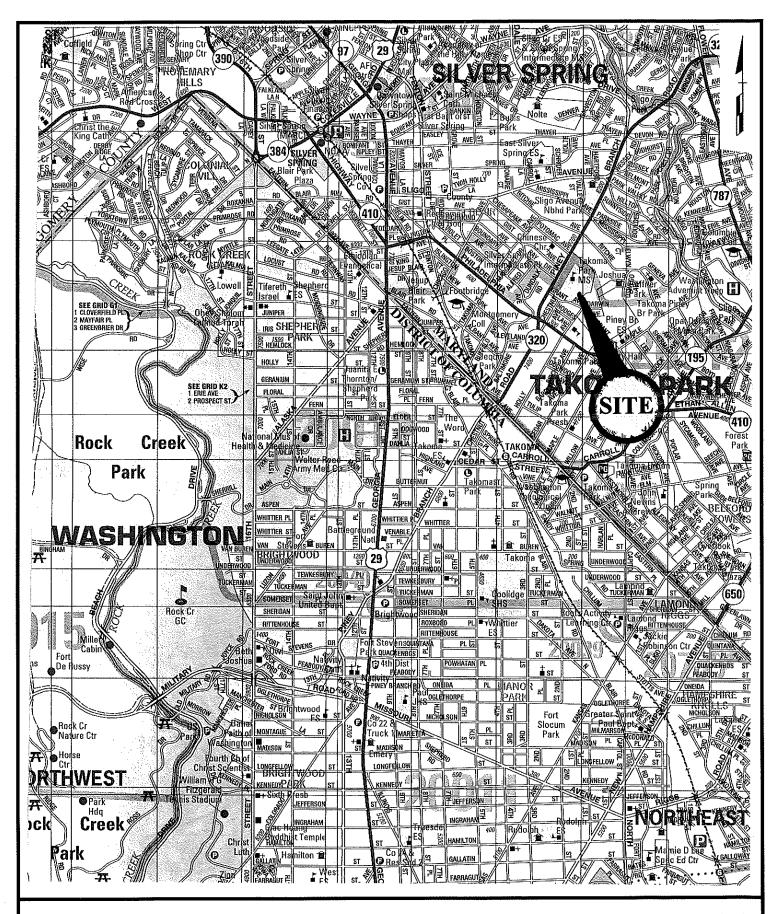


EXHIBIT 1 SITE LOCATION

EXISTING CONDITIONS

Roadway System Elements

The existing Takoma Park Middle School is located in the northeast quadrant of the Piney Branch Road/Grant Avenue intersection. The site is currently served by two (2) full movement access points. One is located at the Piney Branch Road/Ray Drive signalized intersection and the second is located at the Grant Avenue/Chestnut Avenue intersection. All school buses enter the site via the Grant Avenue access and exit via the Piney Branch Road access. The proposed expansion will not change the access points for the school.

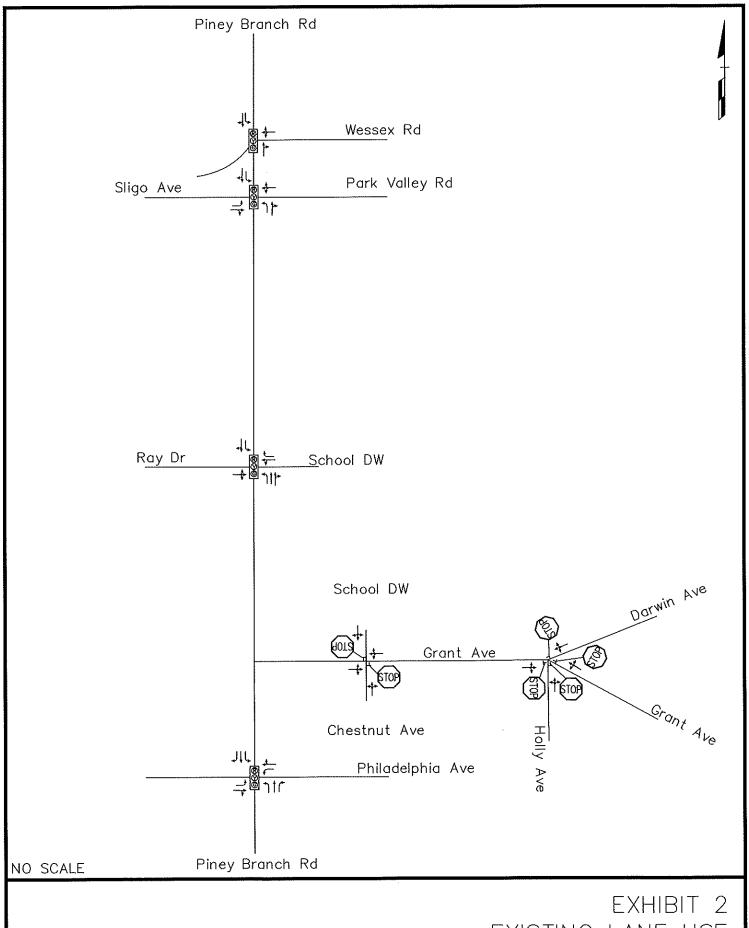
The approach lanes and traffic controls at the intersections analyzed as the basis for this study are shown in Exhibit 2.

Piney Branch Road (MD 320) is a north-south roadway. It is a two lane undivided road with exclusive left turn lanes at most intersections within the study area and has a posted speed limit of 30 MPH. Continuous concrete sidewalks are provided along both sides of MD 320 in this area. It is classified as an Arterial.

Sligo Avenue Sligo Avenue is an east-west roadway. It is a two lane undivided road and has a posted speed limit of 30 MPH. Continuous concrete sidewalks are provided along both sides of Sligo Avenue in this area. It is classified as an Arterial.

Ray Drive is an east-west residential roadway. It is a two lane undivided open section roadway and has a posted speed limit of 25 MPH. There is continuous concrete sidewalk along the south side of Ray Drive in this area.

Grant Avenue is an east-west residential roadway. It is a two lane undivided open section roadway and has a posted speed limit of 25 MPH. There is continuous concrete sidewalk along the north side of Grant Avenue in this area.



EXISTING LANE USE

Existing Traffic Volumes

Manual turning movement traffic counts were conducted by Street Traffic Studies, Ltd. in February 2018 at the intersections that were agreed upon with staff. The counts were conducted between 6:30 AM and 9:30 AM in the morning and between 2:00 PM and 5:00 PM in the evening. The summarized data for these intersections are included in Appendix B.

Based on the counts conducted at the existing Takoma Park Middle School the peak hour for the school in the morning was between 7:30 and 8:30 AM; the evening peak hour for the school was between 3:00 and 4:00 PM. Therefore the peak one hour traffic flows at the study intersections during these hours are shown in Exhibit 3.

The peak hour traffic volumes shown in Exhibit 3 were subjected to a capacity analysis procedure using the Highway Capacity Manual technique and the Critical Lane Volume technique as described in M-NCPPC's *LATR/TPAR Guidelines*. The results of the analysis are set forth in Tables I and 2 and the worksheets and signal timing sheets from which they are derived are in Appendix C.

TABLE 1
HCM CAPACITY ANALYSES RESULTS
(EXISTING PEAK HOUR VOLUMES)

INTERSECTION	MORNING PEAK HOUR	AFTERNOON PEAK HOUR	CONGESTION STANDARD
MD 320 @ Wessex Rd	(21.4)	(23.4)	80 sec/veh
MD 320 @ Park Valley Rd	(18.6)	(43.1)	80 sec/veh
MD 320 @ Ray Dr	(18.0)	(6.7)	80 sec/veh
MD 320 @ MD 410	(25.5)	(24.3)	80 sec/veh
Grant Ave @ Chestnut Ave	(4.6)	(3.3)	80 sec/veh
Grant Ave @ Holly Ave	(7.3)	(7.3)	80 sec/veh

(0000) - (Delay in sec/veh)

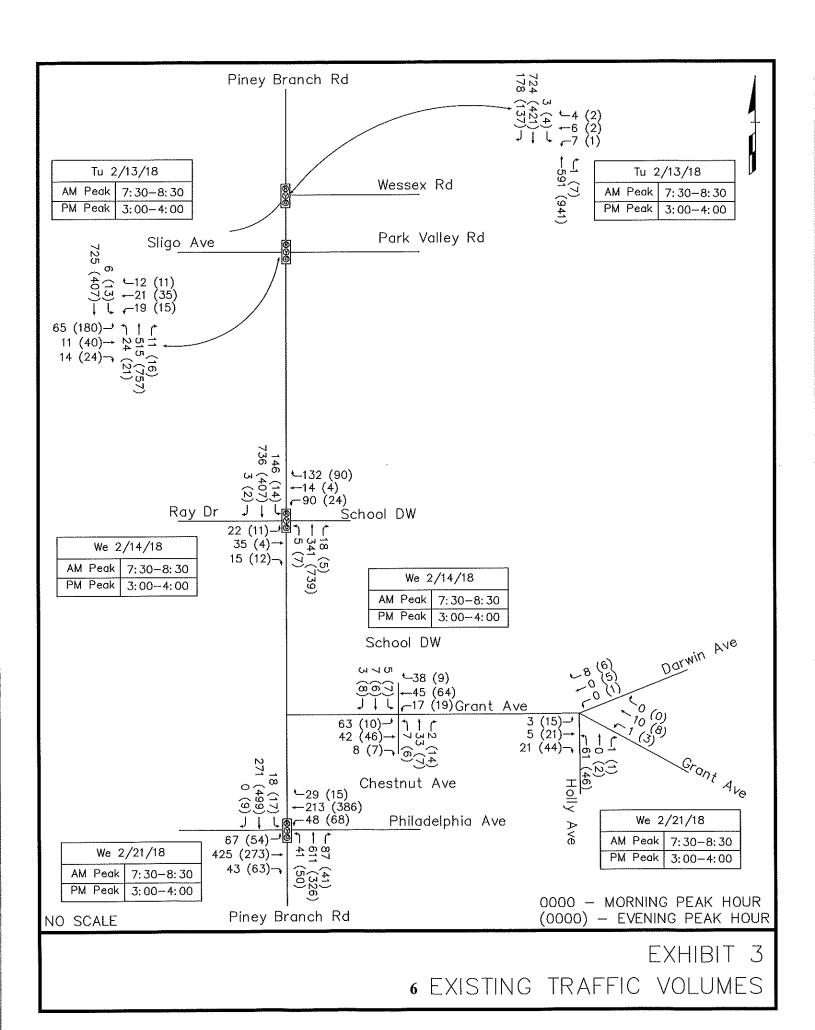


TABLE 2
CLV CAPACITY ANALYSES RESULTS
(EXISTING PEAK HOUR VOLUMES)

MORNING PEAK HOUR	AFTERNOON PEAK HOUR	CONGESTION STANDARD
(919)	(957)	1600
(866)	(1027)	1600
(908)	(468)	1600
(1145)	(1004)	1600
(212)	(138)	1600
(99)	(141)	1600
	(919) (866) (908) (1145) (212)	PEAK HOUR PEAK HOUR (919) (957) (866) (1027) (908) (468) (1145) (1004) (212) (138)

(0000) - (Critical Lane Volume)

As shown in Tables 1 and 2, all of the critical intersections currently operate within acceptable levels during both the morning and evening peak hours.

School Traffic Circulation and Queuing

Existing operations at the Takoma Park Middle School operate smoothly and efficiently with the exception of an approximately 15 minute time frame during the morning arrival and afternoon dismissal periods.

Adult crossing guards are stationed at the MD 320/Ray Drive-School Access and MD 320/MD 410 intersections during both the morning and afternoon peak periods.

A copy of the Proposed Concept Plan and school boundary map are contained in Appendix D.

BACKGROUND TRAFFIC ANALYSIS

As indicated in the scoping agreement, there are three background developments in the general vicinity of the site that needed to be analyzed as a part of this study. The details regarding each of these developments are discussed below.

Planned Developments

In accordance with procedures established by the LATR guidelines, the analysis of the traffic impact of proposed development must include traffic projections for other planned developments in the "vicinity" of the site. The listing of planned developments are shown in Table 3.

TABLE 3
BACKGROUND DEVELOPMENT

DEVELOPMENT	LAND USE	DENSITY
1. Gilbert & Wood	Retail Office Restaurant	12,532 s.f 540 s.f. 7,073 s.f.
2. 6413 Orchard Ave	Warehouse	7956 s.f.
3. 6450 New Hampshire Ave	Laundry Office	2,442 s.f. 2,515 s.f.

Trip Generation

To determine the traffic associated with each of the background developments, trip generation rates were taken from the ITE Trip Generation publication, 9th Edition.

The trips generated are shown in Table 4.

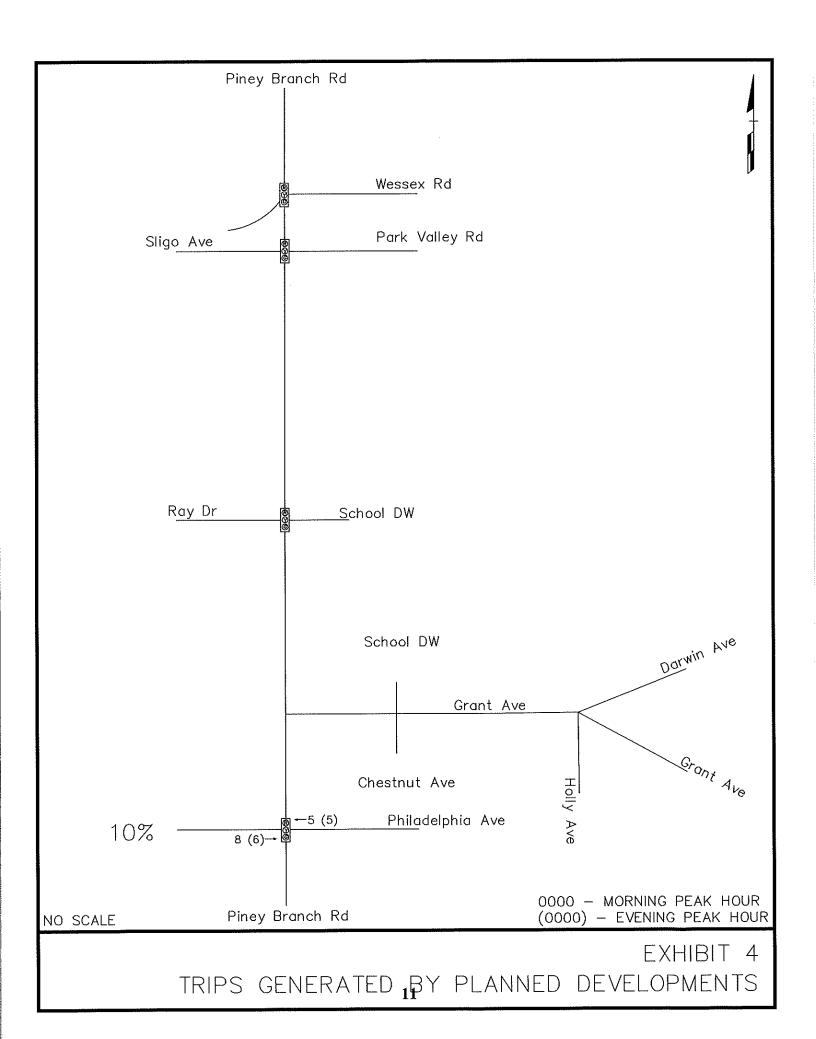
TABLE 4
BACKGROUND TRIP GENERATION

DEVELOPMENT	MORNING PEAK HOUR			EVEN	EVENING PEAK HOUR		
	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>	<u>IN</u>	<u>OUT</u>	TOTAL	
Gilbert & Rose Trips/12,532 sf retail Passby	27	17	44	72 51	77 55	149 106	
New Trips	27	17	44	21	22	43	
Trips/540 sf office	3	0	3	0	1	1	
Trips/7,073 sf rest. Passby	42	34	76	42 18	28 12	70 30	
New Trips	<u>42</u> 72	<u>34</u> 51	<u>76</u>	<u>24</u>	<u>16</u>	<u>40</u>	
Total New Trips	72	51	123	45	39	84	
6413 Orchard Ave							
Trips/7,956 sf warehouse	1	1	2	2	1	3	
6450 New Hampshire Ave							
Trips/2,442 s.f. retail	3	1	4	8	9	17	
Trips/2,515 s.f. office	3	0	3	1	5	<u>6</u>	
Total Trips	<u>3</u> 6	<u>0</u> 1	<u>3</u> 7	<u>1</u> 9	<u>5</u> 14	<u>6</u> 23	

Trip Distribution

The trip distribution for the planned projects was developed using information provided by the M-NCPPC for the Silver Spring/Takoma Park Policy Area. The total trips generated by the planned developments are shown in Exhibit 4. Adding these trips to the Existing Traffic Volumes yield the Background Traffic Volumes as shown in Exhibit 5.

The peak hour traffic volumes shown in Exhibit 5 were subjected to the same capacity analysis procedures as applied to the existing conditions traffic flows. Since the only intersection impacted by the trips generated by planned developments was the MD 320/MD 410 intersection, only that intersection was analyzed under Background Traffic Volumes.



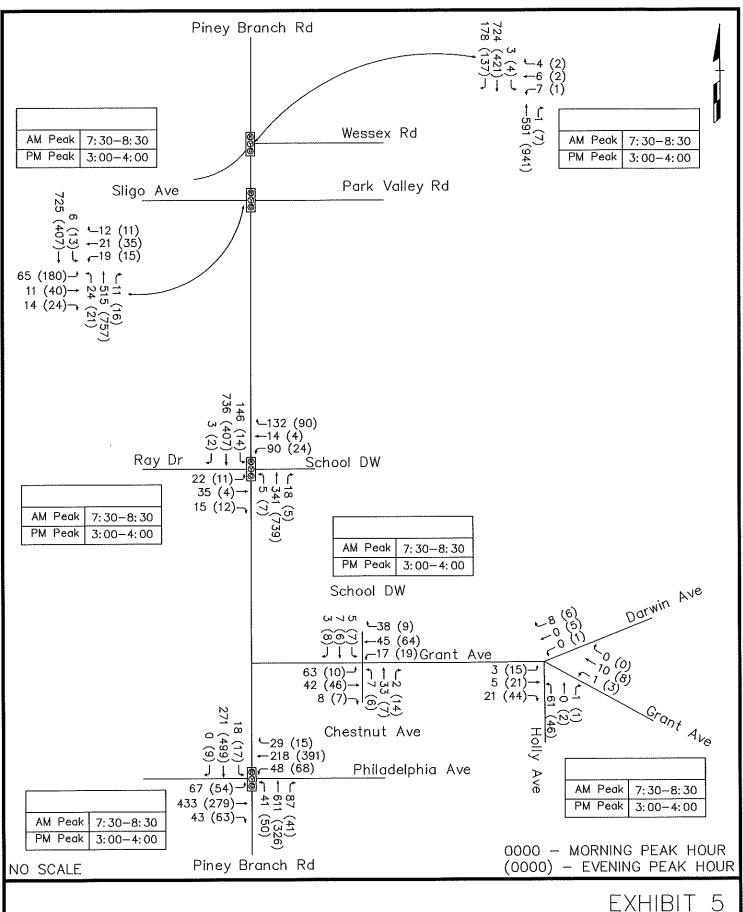


EXHIBIT 5
BACKGROUND TRAFFIC VOLUMES

The results of the analysis are set forth in Tables 5 and 6 and the worksheets from which they are derived are in Appendix E. As shown by the data in Tables 5 and 6, the MD 320/MD 410 intersection is projected to continue to operate within the congestion standards for the Silver Spring/Takoma Park Policy Area during both peak hours.

TABLE 5

HCM CAPACITY ANALYSES RESULTS
(BACKGROUND PEAK HOUR VOLUMES)

INTERSECTION	MORNING <u>PEAK HOUR</u>	AFTERNOON PEAK HOUR	CONGESTION STANDARD
MD 320 @ MD 410	(25.8)	(24.5)	80 sec/veh
(0000) - (Delay in sec/veh)			

TABLE 6
CLV CAPACITY ANALYSES RESULTS
(BACKGROUND PEAK HOUR VOLUMES)

INTERSECTION	MORNING	AFTERNOON	CONGESTION
	<u>PEAK HOUR</u>	PEAK HOUR	STANDARD
MD 320 @ MD 410	(1153)	(1009)	1600

(0000) - (Critical Lane Volume)

SITE TRAFFIC ANALYSIS

Montgomery County Public Schools (MCPS) is proposing to expand the existing Takoma Park Middle School located at 7611 Piney Branch Road. The existing school has an enrollment of 1,098 students, for the current 2017-18 academic year, and the proposed expansion will result in a school with a core capacity of 1,500 students at completion, a 402 student increase. The site is located in the northeast quadrant of the Piney Branch Road/Grant Avenue intersection in the Silver Spring/Takoma Park Policy Area.

Access to the site is currently provided via a full movement access point on MD 320 and a full movement access on Grant Avenue and this will not change with the proposed expansion.

Trip Generation Analysis

Counts were conducted at the existing Takoma Park Middle School driveways as part of this study. The counts are contained in Appendix B and were used to develop trip generation rates for the proposed increase in students resulting from the expansion.

The trips generated by the existing and proposed school are shown in Table 7.

TABLE 7

TRIP GENERATION

EXISTING TAKOMA PARK MIDDLE SCHOOL

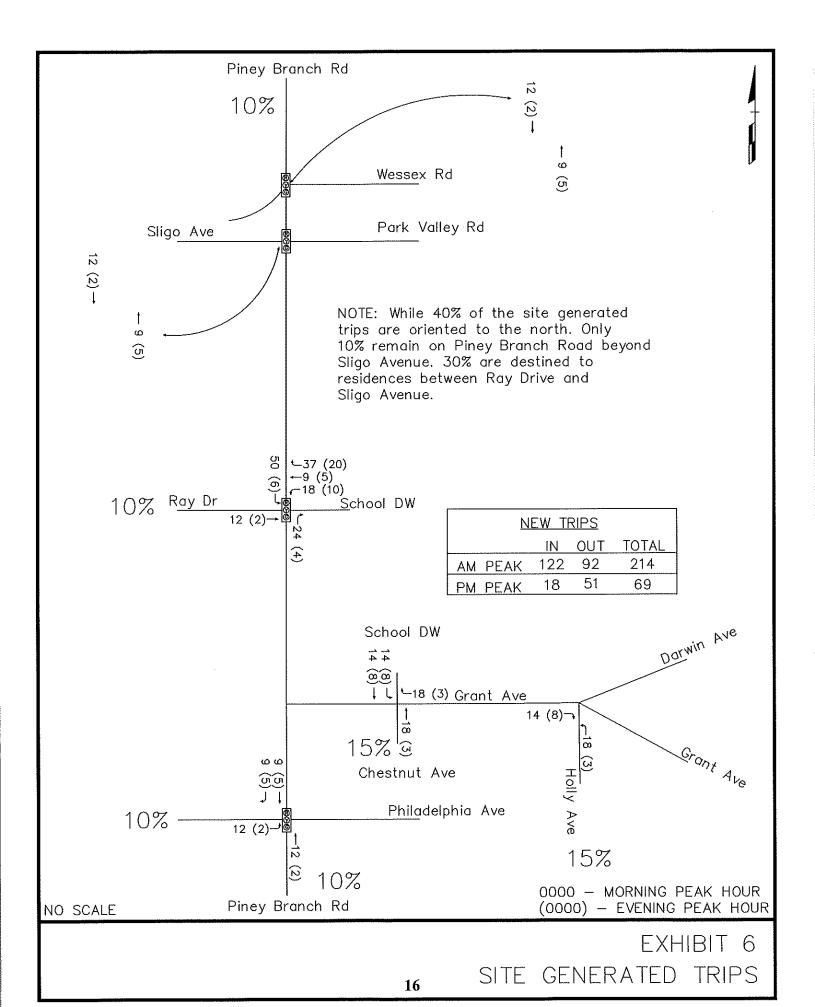
LAND USE	MORNING PEAK HOUR			AFTERNOON PEAK HOUR		
	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>	<u>IN</u>	<u>OUT</u>	TOTAL
Existing Trips						
Trips/1,098 Students	333	251	584	49	139	188
Trips/Student	0.30	0.23	0.53	0.04	0.13	0.17
Trips/402 Students	122	92	214	18	51	69

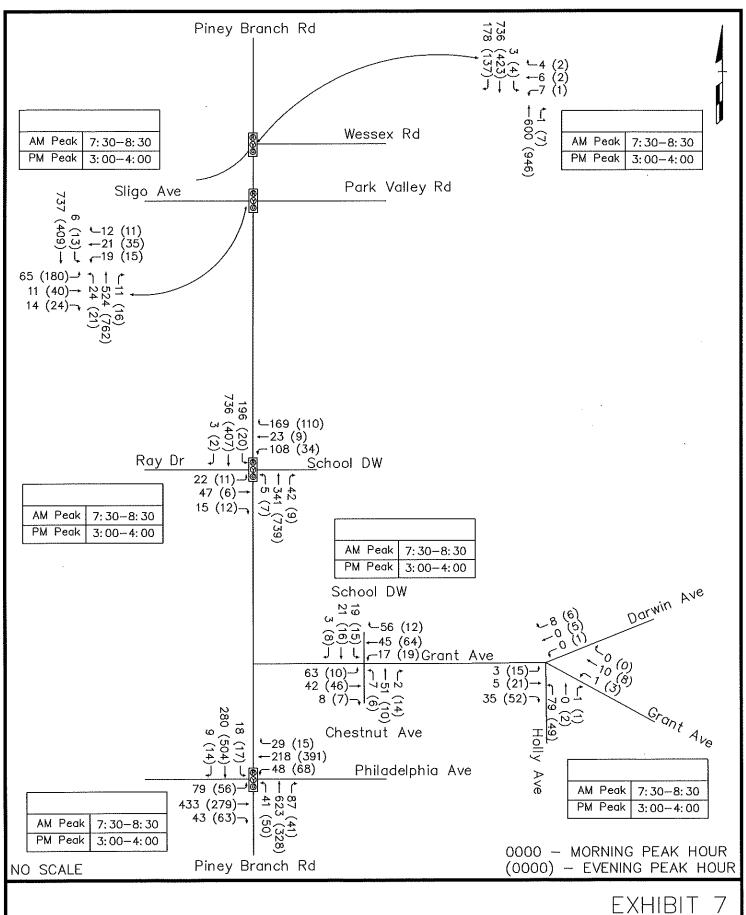
The above trips were generated during the peak hours analyzed for this use, 7:30 to 8:30 AM and 3:00 to 4:00 PM.

Trips were assigned to the road network based on the existing school boundary and the new trips are shown in Exhibit 6. These trips were then combined with the Background Traffic Volumes resulting in the Total Traffic Volumes as shown in Exhibit 7. The total traffic volumes were then evaluated using the same methodology as for the previous step. The results of the analyses are shown in Tables 8 and 9.

TABLE 8
HCM CAPACITY ANALYSES RESULTS
(TOTAL PEAK HOUR VOLUMES)

INTERSECTION	MORNING PEAK HOUR	AFTERNOON PEAK HOUR	CONGESTION STANDARD
MD 320 @ Wessex Rd	(21.9)	(22.0)	80 sec/veh
MD 320 @ Park Valley Rd	(18.6)	(43.0)	80 sec/veh
MD 320 @ Ray Dr	(21.1)	(9.5)	80 sec/veh
MD 320 @ MD 410	(25.8)	(24.6)	80 sec/veh
Grant Ave @ Chestnut Ave	(5.5)	(3.9)	80 sec/veh
Grant Ave @ Holly Ave	(7.4)	(7.4)	80 sec/veh
(0000) - (Delay in sec/veh)			





TOTAL TRAFFIC VOLUMES

TABLE 9
CLV CAPACITY ANALYSES RESULTS
(TOTAL PEAK HOUR VOLUMES)

<u>)</u>

(0000) - (Critical Lane Volume)

The capacity worksheets are contained in Appendix F.

As shown in Tables 8 and 9, all of the critical intersections are projected to operate within acceptable levels with the addition of the trips generated by the Takoma Park Middle School expansion.

In addition to the vehicular capacity analyses shown in Tables 8 and 9, crosswalk levels of service at the critical intersections needed to be evaluated to ensure that the crosswalk level of service was D or higher. The results of the crosswalk level of service evaluations are shown in Table 10.

TABLE 10
CROSSWALK EVALUATION

INTERSECTION	MORNING PEAK HOUR	EVENING PEAK HOUR
MD 320 @ Wessex Rd		
WB EB NB SB	A A B B	A A B B
MD 320 @ Park Valley Rd		
EB WB NB SB	В А В В	В А В В
MD 320 @ Ray Dr		
EB WB NB SB	А В В В	A A B B
MD 320 @ MD 410		
EB WB NB SB	B B B B	B B B B
Grant Ave @ Chestnut Ave		
EB WB	A A	A A

Since the Grant Avenue/Holly Avenue-Darwin Avenue intersection is controlled as an ALL WAY STOP, crosswalk evaluations are not provided by the Highway Capacity Manual and none are shown.

The capacity worksheets are contained in Appendix G.

TRANSIT SYSTEM ADEQUACY

The peak number of new trips generated by this proposal is 214 trips during the morning peak hour. Since these volumes were based on actual counts at the driveways no trip generation adjustment factor was applied. The school is in Policy Area 33 and the results of the mode splits are shown below in Table 11.

TABLE 11
MODE SPLIT ADJUSTMENTS FOR POLICY AREA 33

Total Person Trips	Auto Driver	Auto Passenger	Transit	Pedestrian (Transit + Non-Motorized)	Bicycle (Non-motorized)
100%	63.8%	10.5%	14.0%	14.0%+11.6%	11.6%
335	214	35	47	86	39

Transit System Adequacy - Since the number of transit trips is less than the threshold of 50 a quantitative transit analysis is not required.

PEDESTRIAN SYSTEM ADEQUACY

Pedestrian System Adequacy - The number of non-motorized trips (39) plus the number of transit trips (47 from above) totals 86 and is more than the threshold of 50 so a quantitative pedestrian/bicycle analyses are required. This analyses requires that non-compliance ADA issues within 500 feet of the site boundary be fixed or funded, and ensure that a LOS D for crosswalk pedestrian delays for crosswalks within 500 feet of the sites boundary.

The intersections within 500 feet of the site are the as follows:

- o MD 320 @ Ritchie Avenue
- o MD 320 @ Potomac Avenue
- o MD 320 @ Gist Avenue
- o MD 320 @ Ray Drive-School Driveway
- o MD 320 @ Grant Avenue
- o Grant Avenue @ Chestnut Avenue-School Driveway
- o Grant Avenue @ Darwin Avenue-Holly Avenue
- o Chestnut Avenue @ Hodges Lane

MD 320/Ritchie Avenue is a four leg intersection controlled with Stop signs on the Ritchie Avenue approaches. Marked pedestrian crosswalks are provided on south, east and west legs of the intersection. All ramps at this intersection are ADA compliant. Sidewalks are provided along both sides of MD 320 and along the north side of Ritchie Avenue east of MD 320 and along the south side of Ritchie Avenue west of MD 320. No improvements are recommended at this time.

MD 320/Potomac Avenue is a T type intersection controlled with a Stop sign on the Potomac Avenue approach. There are no marked crosswalks at this intersection. The ramps in the northwest and southwest corners are ADA compliant. Sidewalks are provided along both sides of MD 320 and no sidewalk is provided along Potomac Avenue. No improvements are recommended at this time.

MD 320/Gist Avenue intersection is a T type intersection controlled with a Stop sign on the Gist Avenue approach. There are no marked crosswalks at this intersection. The ramps in the northwest and southwest corners are ADA compliant. Sidewalks are provided along both sides of MD 320 and no sidewalk is provided along Gist Avenue. No improvements are recommended at this time.

MD 320/Ray Drive-School Driveway is a four leg intersection controlled with signalization with marked pedestrian crosswalks on the south, east and west legs. All of the marked crosswalks are supplemented with pedestrian signals with Audible Pedestrian Countdown heads. The ramps at the intersection are ADA compliant and an adult crossing guard is present during peak pedestrian activity in the morning and evening peak periods. Sidewalk is provided along both sides of MD 320 and along the south side of Ray Drive and leading into the school. No improvements are recommended at this time.

MD 320/Grant Avenue is a T type intersection controlled with a Stop sign on the Grant Avenue approach. There are no marked crosswalks at this intersection. The only ramp at this intersection is located in the northeast corner and it is ADA compliant. Sidewalks are provided along both sides of MD 320 north of Grant Avenue, along the west side of MD 320 south of Grant Avenue and along the north side of Grant Avenue. No sidewalk is provided along the east side of MD 320 south of Grant Avenue or along the south side of Grant Avenue. No improvements are recommended at this time.

Grant Avenue/Chestnut Avenue-School Driveway is a four leg intersection controlled with Stop signs on the Chestnut Avenue-School Driveway approaches. ADA compliant ramps are provided in both the northeast and northwest corners of this intersection; however no marked pedestrian crosswalks are provided. Sidewalk is provided along the north side of Grant Avenue. No sidewalks are provided along either Chestnut Avenue or the School Driveway. A lead in sidewalk to the school is provided just east of this intersection which is how pedestrians from the east access the school. No improvements are recommended at this time.

Grant Avenue/Darwin Avenue-Holly Avenue is a four leg intersection is controlled with ALL WAY STOP signs. Crosswalks are provided across the north (Darwin Avenue) and east (Grant Avenue) approaches. The ramps at the crosswalks are ADA compliant. Sidewalk is provided along the north side of Grant Avenue and the east side of Holly Avenue. No improvements are recommended at this time.

Chestnut Avenue/Hodges Lane is a four leg intersection controlled with ALL WAY STOP signs. There are no pedestrian features at this intersection. No improvements are recommended at this times.

In accordance with the *Local Area Transportation Review Guidelines* the results of the pedestrian and bicycle counts that were gathered as a part of the base data collection process are included in Appendix B. These counts show low pedestrian and bicycle volumes at all of the study intersections. Exhibit 8 shows the peak hour pedestrian and bicycle volumes recorded at the critical intersections as well as the existing bus stops.

It is expected that this proposed expansion of Takoma Park Middle School will generate significant pedestrian volumes. Continuous concrete sidewalks are provided along the primary roads within the study area. Table 12 below shows the results of the pedestrian crossing timing analysis at the signalized intersection.

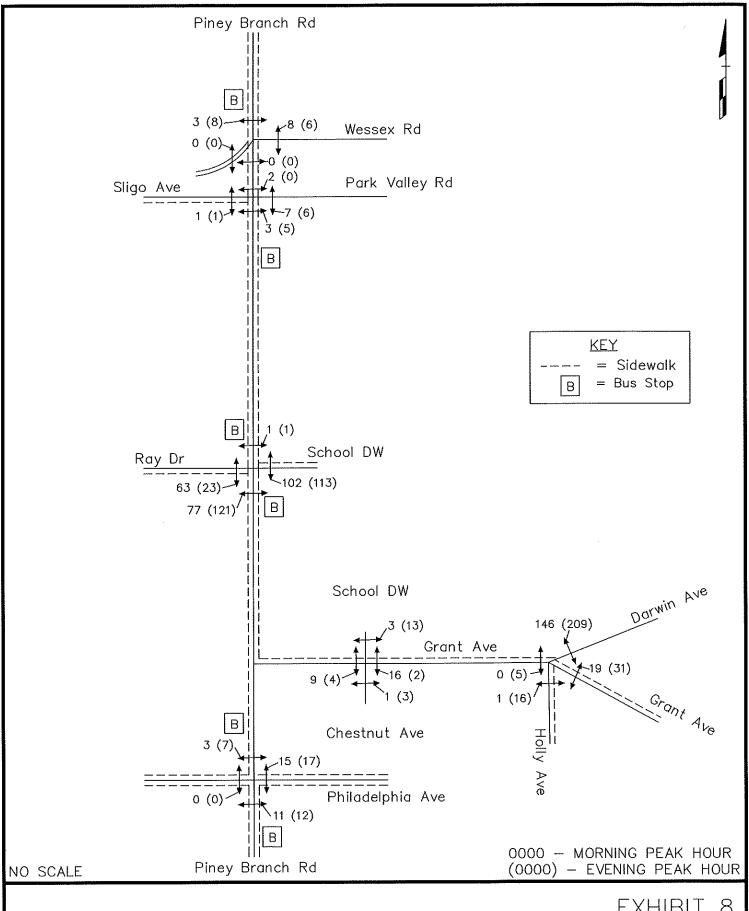


EXHIBIT 8
PEDESTRIAN VOLUMES AND FEATURES

TABLE 12
PEDESTRIAN CROSSING TIMING EVALUATION

INTERSECTION	<u>WIDTH</u>	AVAILABLE TIME	DESIRED TIME					
MD 320 @ Wessex Rd								
N leg of MD 320	40 feet	28.0	11.4					
E leg of Wessex Rd	42 feet	31.0	12.0					
W leg of Sligo Ave	15 feet	31.0	4.3					
MD 320 @ Sligo Ave								
S leg of MD 320	40 feet	28.0	11.4					
E leg of Park Valley Rd	48 feet	31.0	13.7					
W leg of Sligo Ave	45 feet	31.0	12.9					
MD 320 @ Ray Dr								
S leg of MD 320	49 feet	28.0	14.0					
E leg of School DW	42 feet	31.0	12.0					
W leg of Ray Dr	30 feet	31.0	8.6					
MD 320 @ MD 410								
N leg of MD 320	58 feet	28.0	16.6					
S leg of MD 320	62 feet	28.0	17.7					
E leg of MD 410	50 feet	31.0	14.3					
W leg of MD 410	40 feet	31.0	11.4					

The pedestrian crossing timing analyses shows that the available signal timings are adequate.

The following pedestrian/bicyclist features are present at the study intersections:

MD 320 @ Wessex Road - crosswalks are provided across the north, east and west legs of this intersection. The crosswalk across the north leg of MD 320 is supplemented with pedestrian signals with count down displays. ADA compliant handicap ramps are present at each crosswalk location. Five (5) foot wide continuous sidewalks are provided along both sides of MD 320 and four (4) foot continuous sidewalks are provided along both sides of Sligo Avenue.

MD 320 @ Sligo Avenue - crosswalks are provided across the south, east and west legs of this intersection. The crosswalk across the south leg of MD 320 is supplemented with pedestrian signals with count down displays. ADA compliant handicap ramps are present at each crosswalk location. Five (5) foot wide continuous sidewalks are provided along both sides of MD 320 and four (4) foot wide continuous sidewalks are provided along both sides of Sligo Avenue.

MD 320 @ Ray Drive-School Driveway - crosswalks are provided across the south, east and west legs of this intersection. All crosswalks are supplemented with audible pedestrian signals with count down displays. ADA compliant handicap ramps are present at each crosswalk location. Five (5) foot wide continuous sidewalks are provided along both sides of MD 320 at the intersection. These narrow to four (4) foot wide sidewalks away from the intersection. A four (4) foot wide sidewalk is provided along the south side of Ray Drive and lead in sidewalk is provided along the north side of the school driveway.

MD 320 @ MD 410 - crosswalks are provided across all legs of this intersection. All crosswalks are supplemented with audible pedestrian signals with count down displays. ADA compliant handicap ramps are present at each crosswalk location. Five (5) foot wide sidewalks are provided at the approach to the intersection; however they narrow to four (4) foot wide sidewalks leaving the intersection area. No sidewalk is provided along the east side of MD 320 north of MD 410.

BICYCLE SYSTEM ADEQUACY

Bicycle System Adequacy - Since this proposed expansion will not generate 50 or more bicycle peak hour trips a bicycle analysis was not required.

CONCLUSIONS

A traffic impact study was prepared in accordance with the guidelines published by M-NCPPC for Mandatory Referrals, for projects undertaken by public agencies. The proposed expansion of the Takoma Park Middle School falls within the parameters of these guidelines.

After collecting current traffic count data at six (6) intersections, it was determined that under existing traffic volumes all of the intersections that were analyzed as part of the LATR study operate within the Congestion Standard for the Silver Spring/Takoma Park Policy Area of 80 seconds of vehicle delay or less during the peak hours of school traffic.

The analysis then proceeded to generate trips for planned developments and the trips generated by the additional 402 students at Takoma Park MIddle School. The new morning and afternoon peak hour trips were assigned to the intersections included in the study and the capacity analyses were rerun using the procedures set forth in the *LATR/TPAR Guidelines*. The results demonstrate, as shown in Tables 8 and 9, that all of the critical intersections are projected to continue to operate within the 80 second threshold permitted by the Congestion Standard for the Policy Area during the peak hours.

As required by the *LATR/TPAR Guidelines*, pedestrian facilities in the area were also evaluated. The area in which the school is located is a mature neighborhood with continuous sidewalks along the majority of the area roadways to encourage pedestrian traffic to the school. The signalized intersections in the study area are equipped with push-button controlled pedestrian signals to cross the major roadways. ADA compliant crossings are provided at all of the study intersections.

APPENDIX A TRAFFIC STUDY SCOPE OF WORK AGREEMENT

Local Area Transportation Review

TRANSPORTATION IMPACT STUDY SCOPE OF WORK AGREEMENT

Contact Information						
Transportation Consultant (company, contact name, email, and phone number)	Mike Nalepa Street Traffic Studies mnalepa@streettrafficstud 410 590 5500	dies.cor	<u>n</u>			
Name of Applicant / Developer	Montgomery County Publi	c Schoo	ols			
Project Information	Incli	ude Ta	bles/Grap	ohics, As Nee	ded	
Project Name (include plan no. if known)	Takoma Park Middle Scho	ol				
Project Location (include address if known)	7611 Piney Branch Road					
Policy Area(s) (subdivision staging policy map)	Silver Spring/Takoma Parl	κ		Plan(s) / Plan Area(s)		
Assiliant Tanada	☐ Preliminary Plan	□ S	ite Plan	Sketch/Cond Preliminary		□ Amendment
Application Type(s)	☐ Conditional Use (formerly special exception)		ocal Map ndment	☐ APF at B Permit	uilding	☑ Other:
Project Description & Previous Approvals (proposed land uses, zoning, no. of units, square footage, construction phasing, prior approvals and proposals, existing uses, site operations, year built, status of Adequate Public Facilities [APF], other relevant info)	This proposal with revitaling 7611 Piney Branch Road. increase the core capacity Currently the school is ser Grant Avenue. This proposed	Current of the wed by	t enrollmer school to full mover	nt is 1,098 stud 1,500 students ment access po	ents. This p , a 402 stude ints onto Pir	roposal would ent increase.
1.Site Access (proposed access location(s), existing/adjacent/opposite curb cuts, interparcel connections, access configurations and restrictions, internal circulation, private roads, parking/loading areas, other relevant info)	The existing school is serve Road and a full movemen changes will be made to the serve to the se	t acces	s onto Gra	nt Avenue opp		

	☐ Trans	oortation Ir	npact Stu	ıdy		Transportation Stud Statement	•		
2.Transportation Analysis Requirement	denerates 50 hour person to bicycle, and/oreductions oth developments outside of the Policy Areas. Form and inclustudy appendi	ips (vehicula r pedestrian er than a cr over 12 yea White Flint ill out remai de in transp	ar, transit,) with no edit for ex ars old, <u>AN</u> and White inder of th	disting I <u>D</u> is Oak Dis	hour pe and/or p than a c 12 years Oak Pol generat	res 49 or fewer total version trips (vehicular, pedestrian) with no recredit for existing devisions old, <u>OR</u> within Whiticy Areas. Fill out PAFion sections below, a fon statement.	weekday peak transit, bicycle, eductions other relopments over te Flint and White R and trip		
3.Policy Area Review (PAR)	☐ TP (1/1/13 – 1	AR 2/31/16)	(11/15/0		R 31/12)	Exempt (no so increase or fewer the or 1/1/17 or later)			
Only for projects filed before 1/1/17	0, 25, 50%: (TPAR = Transport Area Review)		0-50% (PAMR = P Review)			☐ No PAR (7/1/0☐ PATR (before (PATR = Policy Area)			
4.Transportation Mitigation Agreement (TMAg) Required?	□ No	☐ Yes (25+ Emplo Managemen			ortation	☐ Amend Existing	g TMAg		
5.Established Trans- portation Management District (TMD)?	□ No	□ Yes	TMD Na	ame: _					
Transportation Impact 9	Study Assum	ptions		Inc	clude Tai	bles/Graphics, As I	Veeded		
Transportation Impact S 6.Study Years / Phases	Study Assum Existing Year:	-	Phases / I				Needed		
		2018	-		it Year(s)	: 2021	Needed		
6.Study Years / Phases 7.Study Periods 8.Study Intersections	Existing Year: AM An Property of the purpose subject site should be taken.	2018 M	-day o study (reg the numble nearby unition other t	Build-ou Saturd efer curr per of tien built pro than a cr	at Year(s) ay □ rent LATR rs of study operties in	: 2021 Sunday □ Other:	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods	Existing Year: AM AN PI # of tiers of int For the purpose a subject site shou	2018 M	-day o study (reg the numble nearby unition other t	Build-ou Saturd efer curr per of tien built pro than a cr	at Year(s) ay □ rent LATR rs of study operties in	: 2021 Sunday	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant	Existing Year: AM An Property of the purpose subject site should be taken.	2018 M	-day o study (reg the numble nearby untion other to Dr-Site Acc	Build-ou Saturd efer curr per of tien built pro than a cr	at Year(s) ay ent LATR rs of study perties in edit for ex	: 2021 Sunday	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts	Existing Year: # of tiers of int For the purpose a subject site should be taken at 1) Piney Branch 2) Piney Branch 3) Piney Branch	2018 M	-day o study (regethe numble nearby unition other to br-Site Accordance)	Build-ou Saturd efer curr per of tien nbuilt pro than a cr cess	at Year(s) ay rent LATR res of study perties in edit for ex	: 2021 Sunday	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and	Existing Year: AM Property Amount of the purpose of subject site show should be taken at 1) Piney Branch 2) Piney Branch	2018 M	-day	Build-ou Saturd efer curr per of tien built pro than a cr cess	at Year(s) ay rent LATR rs of study perties in edit for ex 7) 8)	: 2021 Sunday	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and	Existing Year: # of tiers of int For the purpose of subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose of the purp	2018 M	-day	Saturd Saturd efer curr per of tien built pro than a cr cess ve	ay □ rent LATR rs of study operties in edit for ex 7) 8)	: 2021 Sunday	ulation for the o trip reductions		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and accepted application)	Existing Year: # of tiers of int For the purpose of subject site should be taken of the subject site should be sub	2018 M	-day	Saturd Saturd efer curr per of tien than a cr cess ve sex cess	ay □ rent LATR rs of study reperties in redit for ex 7) 8) 9) 10) add mo	: 2021 Sunday	ulation for the o trip reductions er 12 years old.		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and	Existing Year: # of tiers of int For the purpose of subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose of the subject site should be taken of the purpose	2018 M	-day	Saturd Saturd efer curr per of tien than a cr cess ve sex cess	ay □ rent LATR rs of study perties in redit for ex 7) 8) 9) 10)	: 2021 Sunday □ Other: Guidelines): Intersections, trip calcolor common ownership. No isting developments over re rows if necessary Walking Trips*	ulation for the o trip reductions er 12 years old. Bicycling Trips*		
6.Study Years / Phases 7.Study Periods 8.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and accepted application)	Existing Year: # of tiers of int For the purpose of subject site should be taken of the subject site should be sub	2018 M	-day	Saturd Saturd efer curr per of tien than a cr cess ve sex cess	ay □ rent LATR rs of study reperties in redit for ex 7) 8) 9) 10) add mo	: 2021 Sunday	ulation for the o trip reductions er 12 years old.		

NOTE: SEE THE ATTACHED COUNT SHEETS AND THIP TABLES.

	* Only required if total peak hour person trips are 50 or more in either the AM or PM peak hour. Sum of all vehicle, transit, and non-motorized trips shall be the equivalent of total person trips. Use table at the end of the form to show all calculations and assumptions for mode breakout.
(include justification and supporting documentation for internal capture, pass-by, diverted, Transportation Demand Management)	None
11.Trip Distribution % (include a map of the proposed project in addition to a list or table)	Based on the existing volumes and the attached service area map for Takoma Park Middle School, we propose the following trip distributions: 15% to the South along Chestnut Ave 15 % to the East along Grant Ave 10% to the West along Philadelphia Ave 10% to the South along Piney Branch Rd 10% to the West along Ray Dr 40% to the North along Piney Branch Rd NOTE: it is assumed the 30% of this volume would access the neighborhoods south of Sligo Ave and only 10% would continue north on Piney Branch Road beyond Sligo Ave.
12.Pipeline Developments to be considered as background traffic (include name, plan #, land uses, and sizes for approved but unbuilt developments or concurrently pending applications; info can be obtained from the M-NCPPC Pipeline website: - website is updated quarterly)	Gilbert & Wood (820070110) 12,532 sf retail, 540 sf office 7,073 sf restaurant 6413 Orchard Ave (820120160) 7,956 sf warehouse 6450 New Hampshire Ave (820130080) 2,442 sf retail (laundry), 2,515 sf office
13. Pipeline Transportation Projects to be considered as background condition (fully funded for construction in County Capital Improvement Program, State Consolidated Transportation Program, developer projects, etc. within the next 6 years)	None

Preliminary Mitigatio	n Analysis *Refe	r to the LATR Guidelines for	r details on how to mitigate
14.Vehicular Analysis	Vehicular Analysis Anticipated (Vehicular mitigation to be determined after study)	intersections analyzed in stupolicy areas, and 2) intersect 1,350 in "Yellow & Green" prequired for all intersections. CLV assessment an are to be included in the	idies for: 1) "Red & Orange" ctions with a CLV of more than olicy areas. 3) CLV analysis ions regardless of policy id signal timing worksheets
15.Pedestrian Analysis	Pedestrian Mitigation Anticipated	trips, mitigation of surroundir required MITIGATION: Required if AD. 500 foot radius of site bound	A non-compliance issues within ary and if pedestrian crosswalk within 500 feet of site boundary
16.Bicycle Analysis	■ Bicycle • Mitigation Anticipated	surrounding bicycle condition MITIGATION: Required to ma low Level of Traffic Stress to within 750 feet of the site bo	of an existing educational d bikeshare station, mitigation of s is required ake improvements to provide a any existing similar facility undary; Alternatively, project ed improvement that provides an
17.Transit Analysis	□ Transit Mitigation Anticipated	load of LOS D (1.25 transit riperiod in the peak direction), is required	s routes at bus stops within exceeds (or is worse than) peak ders per seat during the peak mitigation of transit conditions ovide or fund improvements that seding the standard that are
Additional Analysis or Software Required	☐ Queuing Analysis☐ Signal Warrant Analysis☐ Weaving/Merge Analysi		□ VISSIM □ CORSIM □ Other

M-NCPPC Clarifications

- Transportation impact study will comply with all other requirements of the LATR Guidelines not listed on this form.
- If physical improvements are proposed as mitigation, the transportation impact study will demonstrate feasibility with regards to right-of-way and utility relocation (at a minimum).
- In the event that the development proposal significantly changes after this transportation impact study scope has been agreed to, the Applicant will work with M-NCPPC staff to amend the scope to accurately reflect the new proposal.
- A receipt from MCDOT showing that the transportation impact study review fee has been paid will be provided to M-NCPPC DARC at the time the development application is submitted.

Minimum of seven paper copies (more if near the County line or an incorporated City) and two PDF copies of the transportation impact study and appendices will be provided.
Additional Assumptions / Special Circumstances for Discussion

Site Trip Ge	neration Esti	mate Worksheet		
Step 1: Vehicle Trips				
ITE Land use Code	NA			
Development Size	+402 Stake			
ITE trip generation estimate	•	Total AM Vehicle Trips		
formula/rate* AM	214		798	•
ITE Trip generation estimate		Total PM Vehicle Trips		•
formula/rate* PM	69		257	
Step 2: Policy Area Conversion				
Policy Area # & Name	33	Trip Adjustment Factor	84	_%
Applied Policy Area Adjusted Value				
AM				
Applied Policy Area Adjusted Value				
PM				
				,
Step 3: Mode Split			AM	PM
Auto Driver	63.8 %	Results		
Auto Passenger	10.5 %	Results		
Transit	14.0 %	Results		
Walking (transit + non-motorized)	25.6 %	Results		
Bicycling (non-motorized)	11.6 %	Results		

Complete one of these tables for EACH use included in the application. Enter results into "Transportation Impacts Analysis" section of the form.

APPENDIX B VEHICLE TURNING MOVEMENT COUNTS

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY Intersection of: Piney Branch Road STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Day: Tuesday

STREET TRAFFIC STUDIES LTD

and: Counted by: Sligo Avenue-Wessex Road MN/GH

Location: Montgomery County
Date: 02/13/18
Weather: Clear
Entered by MN

Counted by:	MIN/GH							Entered								LIU		
TIME	on:	C FROM	NORTH ranch Ro	i	on:	IC FROM Piney E	SOUTH		TRAFFI on:	C FROM Sligo Av	WEST e	n, qualitating appell black gracket	TRAFI	FIC FROI Wesse	M EAST x Rd	* ************************************	TOTAL N+S	
TIME	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT		LEFT	TOTAL	LEFT	THRU		TOTAL	+ E + W	!
AM																·		-
06:30-45	I 50	167	0	217	0	52	0	52	0	0	0	0	1	1	1	3	272	
45-00	54	180	ő	234	Ö	57	Ö	57	Ö	Ö	ā	Ö	ò	1	1	2	293	
07:00-15	52	167	ő	219	0	79	0	79	Ö	ō	ō	Ö	2	3	2	7 1	305	1
15-30	38	182	0	220	0	106	1	107	0	Õ	o o	Ö	2	ő	1	3	330	1
30-45	40	185	ő	225	0	122	ò	122	0	Ö	0	0	0	ő	2	2 1	349	ŀ
45-00	46	179	2	227	ő	149	Ö	149	Ö	Õ	Ö	Õ	4	2	2	8	384	ł
08:00-15	43	179	ō	222	0	195	1	196	0	ő	0	0	1	2	ō	3	421	1
15-30	49	181	1	231	0	125	Ö	125	Ö	0	ő	Ô	2	2	Ö	4 1	360	i
30-45	55	181	Ö	236	ő	132	2	134	0	0	0	0	0	1	1	2	372	-
45-00	58	154	1	213	0	120	0	120	0	0	0	0	3	3	2	8 1	341	
9:00-15 I	56 66	149	2	217	0	141	0	141	0	0	0	0	2	2	0	0 4	362	
15-30	l 62		2	225	0			121		0	0	0	1	1	0	2		!
AM	6∠ 	161	2	225	U	120	1	121	0	U	U	U	ı	ı	U	ر <u>ح</u> ا	348	ŀ
3 HOUR																İ		ı
TOTALS	613	2065	8	2686	0	1398	5	1403	0	0	0	0	18	18	12	48	4137	İ
1 HOUR																j		ĺ
TOTALS																i		ĺ
630-730	194	696	0	890	0	294	1	295	0	0	0	0	5	5	5	15	1200	Ĺ
345-745	184	714	0	898	0	364	1	365	0	0	0	0	4	4	6	14	1277	Ĺ
07-08	176	713	2	891	0	456	1	457	0	O.	0	0	8	5	7	20	1368	i
715-815	167	725	2	894	Ū.	572	2	574	ō	Ö	ō	ō	7	4	5	16	1484	i
730-830	178	724	3	905	Õ	591	1	592	0	0	0	0	7	6	4	17	1514	¦ρ
745-845	193	720	3	916	0	601	3	604	0	C	0	0	7	7	3	17 (1537	→'' (
08-09	205	695	2	902	Ō	572	3	575	0	ō	ō	G	6	8	3	17 i	1494	10
815-915	228	665	4	897	Ō	518	2	520	0	Ô	0	0	7	8	3	18	1435	ĺ
830-930	241	645	5	891	ŏ	513	3	516	Ö	Ö	0	Ö	6	7	3	16	1423	i
EAK HOUR		- 1.0	_			-,-	•		•	-	-	-	-	•	-		,	i
745-845	193	720	3	916	0	601	3	604	0	0	0	0	7	7	3	17	1537	į
PM I																 		
02:00-15 i	32	92	1	125	0	135	1	136	0	0	0	0	1	0	1	2	263	i
15-30	34	97	0	131	0	196	0	196	0	0	0	0	3	1	1	5	332	ì
30-45	32	86	1	119	ō	195	3	198	0	0	0	0	0	0	1	1 i	318	i
45-00	37	107	Ó	144	ō	171	ō	171	Ö	0	ō	Ö	1	2	ó	3	318	ì
3;00-15	39	103	1	143	ō	198	2	200	Õ	Õ	Ō	0	0	0	1	i i	344	i
15-30	35	99	ò	134	ō	235	1	236	0	0	0	0	1	0	Ó	i i	371	i
30-45 I	29	114	1	144	o o	253	4	257	0	0	ő	Ö	ò	0	Ő	o i	401	ì
45-00 I	34	105	2	141	ő	255	0	255	0	0	0	0	0	2	1	3	399	ì
4:00-15	33	111	4	148	Ö	264	2	266	0	0	0	0	0	0	1	1	415	i
15-30	32	123	3	158	0	256	2	258	0	0	0	0	1	1	3	5	421	i
30-45 I	33	113	0	146	0	264	1	265	0	0	0	0	2	1	0	3	414	ŀ
45-00 l	33	100	1	138	0	266	1	267	0	0	0	0	0	Ó	2	2	407	1
PM	. J	100	1	130	J	200	'	201	U	U	U	U	v	v	4	-	407	1
3 HOUR																ł		1
TOTALS I	407	1250	4.4	1671	0	2688	17	2705	0	0	0	0	9	7	11	27	4403	1
HOUR I	407	1250	14	1073	U	2000	17	2105	U	U	U	U	a	,	- 11	21	4403	-
																!		1
FOTALS	125	200	^	E40	_	607	,	704			^		r	•		44 !	4004	!
02-03	133	382	2	519	0	697	4	701	0	0	0	0	5	3				
215-315	142	393	2	537	0	760	5	765	0	0	0	0	4	3	3	10	1312	ļ
230-330	143	395	2	540	0	799	6	805	0	0	0	0	2	2	2	6	1351	!
245-345	140	423	2	565	0	857	7	864	0	0	0	0	2	2	1	5	1434	١
03-04	137	421	4	562	0	941	7	948	0		0	0		2_	2	5	1515	J 1
315-415	131	429	7	567	0	1007	7	1014	0	0	0	0	1	2	2	5	1586	Ţ
330-430	128	453	10	591	0	1028	8	1036	0	0	0	0	1	3	5	9	1636	Ţ,
345-445	132	452	9	593	0	1039	5	1044	0	0	0	0	3	4	5	12	1649	Ţ
04-05	135	447	8	590	0	1050	6	1056	0	0	0	0	3	2	6	11	1657	1
PEAK HOUR																1		
04-05	135	447	8	590	0	1050	6	1056	0	0	0	0	3	2	6	11	1657	1

STSLTD STSLTD STSLTD STSLTD STSLTD
VEHICLE TURNING MOVEMENT COUNT - SUMMARY
Intersection of: Piney Branch Road
and: Sligo Avenue-Wessex Road
Counted by: MN/GH

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD Location: Montgomery County
Date: 02/13/18
Weather: Clear

Day: Tuesday

STSLTD STSLTD STSLTD STSLTD STREET

Tuesday TRAFFIC

STUDIES

Bikes Only

Entered by MN

LTD

Counted by:	WIN/GH				Bikes C			Entered t								LID	
TIME	on:	C FROM Piney B			TRAFF on:	IC FROM	ranch Rd			C FROM Sligo Av	WEST e			FIC FROM Wessex	MEAST Rd		TOTA
į	RIGHT		LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT			TOTAL	+ E+W
		*********						*********			***************************************						
06:30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	Ö	1	Ó	1	0	0	0	Ō	0	0	0	Ō	0	0	0	ō	ĺ
07:00-15	0	1	0	1	o	Ō	Ó	0	0	0	Ô	0	0	0	0	0	
15-30	ō	2	ō	2	ō	Ö	ō	ō	0	0	Ö	0	0	ō	Ō	ō	
30-45	1	0	Ö	1	Ö	Ö	Ö	ō	ō	ō	Ö.	Ō	ō	ō	Ö	ő	
45-00	o o	1	0	1	0	0	0	0	0	Ō	0	0	0	Ó	Ô	0	
8:00-15	O	0	0	Ó	0	Ó	Ó	Ó	0	0	0	0	1	Ó	0	1	
15-30 i	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	Ó	0	Ó	Ó	Ó	0	0	Ō	Ō	Ó	0	0	0	0	0	0	
45-00	0	1	Ó	1	Ó	Ô	0	Ö	Ô	Ó	0	0	0	0	0	Ō	
9:00-15	ō	2	ō	2	ō	ō	ō	0	Ō	0	0	Õ	Ö	0	0	0	
15-30 AM	0	1	0	1	0	0	ō	0	0	0	ō	0	0	0	0	0	
HOUR j																	
TOTALS į	1	10	0	11	0	0	0	0	0	0	0	0	1	0	0	1	
HOUR																i	
OTALS																	
30-730	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
45-745	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	
07-08	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	
15-815	1	3	0	4	0	0	0	0	0	0	0	0	1	0	0	1	
30-830	1	2	0	3	0	0	0	. 0	0	0	0	0	1	0	0	1_	
45-845	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	1	
08-09	0	2	. 0	2	0	0	0	0	0	0	0	0	1	0	0	1	
315-915	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
30-930	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
EAK HOUR				_	_	_				_	_				_		
345-745 	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	
PM																	
2:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	G	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00 J	0	0	0	0	0	0	O	0	0	0	0	0	0	C	0	0	
3:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	C	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	C	0	0	
4:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM																1	
HOUR																- 1	
OTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HOUR [
OTALS																	
02-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03-04	0	0	0	0	0	0	0	0	0	0	0	.0	00	0	0	0	
15-415	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-430	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EAK HOUR																	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Company Name Street Traffic Studies

Location

Piney Branch Rd @ Wessex Rd

Date

13-Feb-18

	Piney Branch	Piney Branch	Wessex Rd	Sligo Ave
Crosswalk	North Leg	South Leg	East Leg	West Leg
Hour				0
06:30	0	0	0	0
06;45	1	0	3	0
07:00	1	0	1	0
07:15	1	0	0	0
07:30	0	0	1	0
07:45	1	0	4	0
08:00	0	0.	0	0
08:15	2	0	3	0
08:30	0	0	2	0
08:45	1	0	4	0
09:00	0	[6]	1	0
09:15	0	0	0	0
		- Annual Control		
14:00	0	0	0	0
14:15	0	0	1	0
14:30	0	0	0	0
14:45	1	0	0	0
15:00	7	0	0	0
15:15	0	0	1	0
15:30	0	0	2	0
15:45	1	0	3	0
16:00	2	0	0	Ö
16:15	0	0	1	0
16:30	0	0	0	0
16:45	0	0	0	0
TOTAL	18	0	27	0
AM Peak Vol	3	0	8	0
PM Peak Vol	8	0	ě	0

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County Date : 02/13/18

Day: Tuesday

STREET TRAFFIC STUDIES

and: Counted by: MN/GH

Intersection of:

Piney Branch Road Sligo Avenue-Park Valley Road

Weather : Clear Entered by MN

LTD

TRAFFIC FROM NORTH TRAFFIC FROM SOUTH TRAFFIC FROM WEST TRAFFIC FROM EAST TOTAL Piney Branch Rd Piney Branch Rd Sligo Ave on: Park Valley Rd N + Son; on: on: TIME RIGHT THRU LEFT TOTAL LEFT THRU RIGHT TOTAL RIGHT THRU LEFT TOTAL LEFT THRU RIGHT TOTAL E+W AM 06:30-45 O n Đ 45-00 07:00-15 n 15-30 30-45 45-00 14 j 08:00-15 15-30 30-45 n G ß 45-00 09:00-15 Ω 15-30 ΑM 3 HOUR **TOTALS** 1 HOUR TOTALS 630-730 645-745 07-08 715-815 PNF 730-830 745-845 ō 0.87 08-09 815-915 830-930 PEAK HOUR 745-845 PM 02:00-15 15-30 ß 30-45 45-00 03:00-15 15-30 30-45 45-00 04:00-15 15-30 30-45 45-00 PM 3 HOUR **TOTALS** 1 HOUR **TOTALS** 02-03 215-315 230-330 PHE 245-345 03-04 0.92 315-415 330-430 345-445 04-05 PEAK HOUR

STSLTD STSLTD STSLTD STSLTD STSLTD

330-430

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

1635 I

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STSLTD STSLTD STSLTD STSLTD STSLTD Location: Montgomery County

STSLTD STSLTD STSLTD STSLTD

STREET TRAFFIC

Intersection of: Piney Branch Road Sligo Avenue-Park Valley Road MN/GH and: Counted by:

Date : 02/13/18 Weather : Clear Entered by MN

Bikes Only

Day: Tuesday

STUDIES LTD

						····,											
 TIME	TRAFFI on:	C FROM	NORTH ranch Rd			C FROM Piney B	SOUTH ranch Rd		TRAFFI	C FROM Sligo Av	WEST re		TRAFI on:	FIC FROM Park Va	VIEAST alley Rd	* *************************************	TOTA
) iivic	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	E+W
AM							* **********	***************************************									
06:30-45	i o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	i
45-00	i ō	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ì
07:00-15	i ō	1	ō	1	ō	ō	Ö	0	0	0	0	0	0	Ð	0	0	i
15-30	i ŏ	2	ŏ	ż	ō	ō	ō	Õ	ō	ō	0	O.	0	0	0	Ö	i
30-45	, o	ō	ő	õ	ő	ō	ō	Õ	Õ	ŏ	Õ	Ö	Õ	0	ō	ō	i
45-00	. 0	1	0	1	0	0	ő	0	0	0	0	0	0	0	ő	0	! !
8:00-15	0	2	0	2	ő	0	ő	ő	0	o o	0	0	Õ	ő	ő	0	! !
15-30	0	1	0	1	0	0	0	0	0	0	Ő	0	0	0	ő	Ö	ļ
30-45	1 0	ó	0	Ó	0	0	0	0	0	0	0	0	0	0	0	0	ļ
45-00 I	1 0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ļ
45-00 09:00-15	1 0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	ļ
	1 0		0		0		0	0	0	0	0	0	0	0	0	0	ļ
15-30	l G	1	U	1	U	0	U	U	U	U	U	U	U	U	U	U]
AM																	!
3 HOUR			_									_	•		•	•	!
TOTALS	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0	0	1
1 HOUR																	!
TOTALS												_	_	_	_	_	ļ
630-730	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	ļ
645-745	0	4	0	4	0	C	0	0	0	0	0	0	0	C	0	0	
07-08	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1
715-815	J 0	5	0	5	0	C	0	0	0	0	0	0	0	0	0	0	l
730-830	0	4	0	4	0	C	0	0	0	0	0	0	0	0_	0	<u> </u>	<u> </u>
745-845	0	4	Ō	4	0	0	0	0	0	0	0	0	0	0	0	0	l
08-09	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
815-915 J	J 0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	ļ.
830-930	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HOUR																	
715-815	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	!
PM I																	i i
02:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	i
15-30	. 0	ō	ō	0	0	ō	0	Ō	0	0	0	0	0	0	0	0	ì
30-45	0	ō	ō	0	ō	Õ	ō	Õ	Õ	ō	ō	0	0	0	0	ō	i
45-00	0	ő	ŏ	Ô	ő	0	Ö	Ö	Ö	0	ō	Õ	ō	Õ	Õ	ő	i
3:00-15	0	0	ő	Ö	ō	0	o	0	0	0	ő	Ö	0	Ö	ő	ő	ì
15-30	. 0	0	0	ő	ő	0	0	0	0	Ö	Ö	Ö	0	o	0	ő	i
30-45	0	0	0	0	Ö	0	o o	0	0	0	ō	ő	0	0	0	ő	!
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	}
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	!
4:00-15	0	_		0	0	0	0	0	0	0	0	0	0	0	0	0	!
15-30	1	0	0	_		_		_	_	-	-						}
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	!
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	O	0	0	!
PM																	ļ
3 HOUR	_		_		_		_	_		_	_		_	_		_	!
TOTALS	0	0	0	0	0	0	0	0	0	0	Đ	0	0	0	0	0	!
1 HOUR																	!
TOTALS																	!
02-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ļ
215-315	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	!
230-330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
245-345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03-04	0	0	0	0	0	0	0	00	0	0	0	0	0	00	0	. 0	L
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
315-415			_		0	0	0	0	0	0	0	0	0	0	0	0	1
	0	G	0	0	U	U	•	0	•	v	U	U	v		U	•	
315-415 330-430 345-445	0 0	0	0	0	0	0	0	0	ő	0	0	Õ	0	0	ő	Ö	ì
330-430																	
330-430 345-445	jo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Company Name Street Traffic Studies

Location

Piney Branch Rd @ Sligo Ave

13-Feb-18

	Piney Branch	Piney Branch	Park Valley	Sligo Ave
Crosswalk	North Leg	South Leg	East Leg	West Leg
Hour				0
06:30	0	0	1	0
06:45	0	3	4	1
07:00	0	0	2	1
07:15	0	3	0	1,
07:30	0	1	0	0
07:45	1	2	5	0
08:00	0	0	0	0
08:15	1	0	2	1
08;30	0	0	1	0
08:45	0	2	0	0
09:00	0	2	1	0
09:15	0	0	0	0
14:00	0	1	0	0
14:15	0	1	1	0
14:30	0	0	0	0
14:45	0	0.	2	0
15:00	0	2	2	Ö
15:15	Ō	1	1	0
15:30	0	0	2	0
15:45	0	2	1	1
16:00	0	3	C	1
16:15	0	. 0	1	0
16;30	0	4	0	0
16:45	0	0	1	1
TOTAL	2	27	27	7
AM Peak Vol	2_	3	7	
PM Peak Vol	<u>7.</u> 0	5	Ġ	İ

336 Piney Branch Rd(MD320) & Sligo Ave & Park Valley RD& Wessex RD

			EB-Pinney Branch	SB- Sligo Ave	NB- Park Valey/Wessex	sex	WB-Piney Branch		SB-Southlawn La
0 0	PHASE					5	9	7	
0 0	MIN GRN		98		\$	Section 5	30	36 8 37 0 36 1 3 3	8
0 0	BKMGRN	**************************************	0	0	0.00	0	12/2012/04/12/12	0	0.07700
0 0	CS MGRN	0			0			0	0
0 1	DLY GRN	0	0	0.000		0	100 July 100	0	0
0 0	WALK	D		0	7	0.	10	0	0
	WALK	9	1	0		0	g		0
1	WLKMX		٥	0.00	0.000	•	0	0	١.
0 0	PEDCA	9		0	21.	0.000	15	80.000 0 775,556	0
0 0	M CLR2	o	0	0	0	West (1997) O Million (1997)	A	William princers	٥
Color Colo	PCMAX	Đ	0	D.	1	0		0.000	0'
Column C	PED CO	0	ð	D	٥	0	0	D	0
0 0	VEHEXT	a	0	•	4.00	•	0	0	4
0 50 60 45 35 150 100	VH EXT2	20/11/20/00/2019	0	0	0		0	0////	0
Color Colo	MAX1	0	20		45		50	W4000000000000000000000000000000000000	45
0	MAX	0	25		45		50	Shelik o yalish	545
0 0	MAUG	0	0	0	- 3		0.000	0	0
	DYM MAX	0	Đ	0	O	0	0	0	0
1	DYMSTIP	9	0	0	66 C. C. O. C. C. C. C.			0	to et al to o el fabere i
Color Colo	YELLOW		· · · · · · · · · · · · · · · · · · ·		÷		******	Mark Edition	4
	REDGER	0	2	0					2
	RED HAX	\$50000 (a)(1000)	0	0 1/2 1/2	0.000		0.000	0	********
	RED RVT	2	16	8	11	West Miles & Contract of the C	S	2	2
	M U	٥	D	0	0	0	a	0	
	SEC/ACT	0.	0	D	0	0	0	0	0
	HAXINT	0			0	100000000000000000000000000000000000000	0		٥
	TIME 84	•		0	0		0	0	0
	CARSWT		0.5		0	•	0	0.000	0
	STPTDUC	0	0	0.0000000000000000000000000000000000000		0		0.000	0
	TREDUC	0	0	0		0	0	0	Q
**************************************	MIN GAP	•	0	•			0	0	Tables or store
			•	0	0		0	100.000	0

S 7 S C C C C C C C C C C C C C C C C C	5 7 8 55 0 0 65 NONE NONE	S 7 8 S 0 D S NONE NONE	5 7 8 NOWE NOWE
4 5 6 20 0 98 X X NONE NONE	4 5 6 20 0 65 20 0 X NONE NONE NONE	20 0 95 20 0 95 X NONE NONE	S TANGER
2 3 \$8 32 X NONE NONE	2 3 65 23 X NONE NONE	2 3 95 35 X NONE NONE	2 S
PHASE 1 SPUTA COORD PHASE MODE NONE	PHASE 1 SPLIT2 0 COORD PHASE MODE NONE	PHASE 1 SPLT3 0 COORD PHASE MODE NONE	PHASE 1 SPLIT 4 COORD DHASE MODE MONE
3 150 115 PM	3:0 6-7 :00		
	9:30-3:00		
7. 150 100 100			
USE SPLIT PATTERN CYCLE OFFSET VAL TOD			

STSLTD STSLTD STSLTD STSLTD STSLTD
VEHICLE TURNING MOVEMENT COUNT - SUMMARY
Intersection of: Piney Branch Road
and: Ray Drive-School DW

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County
Date: 02/14/18
Weather: Clear
Entered by MN

Day: Wednesday

STREET TRAFFIC STUDIES

Counted by: MŃ

LTD

									-		********					~		
 TIME	on:	C FROM Piney B	NORTH ranch Rd		TRAFFI on:	C FROM Piney B	SOUTH		TRAFF		WEST		TRAFF on:	FIC FROI School	M EAST DW	************	TOTAL N+S +	
1		THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	E+W	
AM I																i		-I
06:30-45	0	171	1	172	0	44	1	45	2	0	0	2	0	0	0	0	219	
45-00	0	178	6	184	0	45	0	45	1	0	2	3	0	0	0	0	232	1
07:00-15	0	166	7	173	0	52	0	52	0	0	4	4	3	0	0	3	232	
15-30	0	199	10	209	0	78	3	81	3	2	7	12	3	0	5	8 J	310	
30-45	0	185	34	219	1	95	5	101	2	12	4	18	11	3	21	35	373	1
45-00	1	179	65	245	1	71	9	81	3	13	3	19	29	2	50	81	426	1
08:00-15	0	171	38	209	2	92	3	97	8	8	10	26	44	7	53	104 J	436	1
15-30	2	201	9	212	1	83	1	85	2	2	5	9	6	2	8	16	322	1
30-45	0	171	0	171	1	74	0	75	4	0	2	6	1	0	3	4	256	1
45-00	1	185	3	189	1	73	0	74	6	0	2	8	1	0	1	2	273	Í
09:00-15	0	186	4	190	5	135	0	140	7	1	6	14	0	1	5	6	350	1
15-30	0	184	2	186	2	98	1	101	5	0	1	6	2	1	1	4	297	İ
AM																ĺ		ĺ
3 HOUR																		İ
TOTALS	4	2176	179	2359	14	940	23	977	43	38	46	127	100	16	147	263	3726	İ
1 HOUR																ì		Ì
TOTALS																j		İ
630-730	0	714	24	738	0	219	4	223	6	2	13	21	6	0	5	11	993	İ
645-745	0	728	57	785	1	270	8	279	6	14	17	37	17	3	26	46	1147	İ
07-08	1	729	116	846	2	296	17	315	8	27	18	53	46	5	76	127	1341	i
715-815	1	734	147	882	4	336	20	360	16	35	24	75	87	12	129	228	1545	i
730-830	3	736	146	885	5	341	18	364	15	35	22	72	90	14	132	236	1557	i
745-845	3	722	112	837	5	320	13	338	17	23	20	60	80	11	114	205	1440	ì
08-09	3	728	50	781	5	322	4	331	20	10	19	49	52	9	65	126	1287	i
815-915	3	743	16	762	8	365	1	374	19	3	15	37	8	3	17	28	1201	i
830-930	1	726	9	736	9	380	1	390	22	1	11	34	4	2	10	16	1176	· .
PEAK HOUR	'	120	J	1 00	Ü	300	1	590	44	'	1 1	J-7	7	-	10	10	1110	PHF
730-830	3	736	146	885	5	341	18	364	15	35	22	72	90	14	132	236	1557	0.89
PM [0,07
02:00-15	2	73	1	76	2	116	0	118	1	3	2	6	0	0	2	2	202	
15-30	0	106	2	108	0	108	1	109	4	0	0	4	1	0	4	5	226	1
30-45	2	124	5	131	2	135	O	137	3	1	4	8	1	0	5	6	282	İ
45-00	3	98	13	114	2	146	4	152	3	1	5	9	3	0	0	3	278	ĺ
03:00-15	1	94	6	101	3	178	3	184	2	1	7	10	12	1	59	72	367	İ
15-30	0	106	1	107	1	169	1	171	3	1	0	4	5	1	14	20	302	i
30-45	1	108	3	112	ò	195	ì	196	3	1	2	6	2	0	9	11	325	İ
45-00	Ö	99	4	103	3	197	Ċ	200	4	1	2	7	5	2	8	15	325	i
04:00-15	2	106	5	113	3	224	2	229	i 1	1	5	7	1	0	12	13	362	i
15-30	2	103	7	112	1	190	1	192	2	2	4	8	5	2	32	39	351	ì
30-45	1	134	1	136	3	199	Ċ	202	5	0	7	12	4	1	11	16	366	i
45-00	2	131	4	137	1	206	1	208	2	1	3	6	0	1	4	5	356	İ
PM I	~	. • .	•	,	•		•		-	•	-	-	-	•	•	-		ì
3 HOUR																i		i
TOTALS I	16	1282	52	1350	21	2063	14	2098	33	13	41	87	39	8	160	207	3742	1
1 HOUR	10	1202	J.	,000	£ 1	2,000	1-7	2000	50	,,,	77 1	٠,	33	Ü	٠٠٠	20,	3172	1
TOTALS																 		1
02-03	7	401	21	429	6	505	5	516	11	5	11	27	5	0	11	16	988	i I
215-315	6	422	26	454	7	567	8	582	12	3	16	31	17	1	68	86	1153	1
230-330	6	422	26 25	454 453	8	628	8	644	11	4	16	31	21	2	78	101	1229	1
245-345	5	422 406	25 23	453 434	6	688	9	703	11	4	14	29	22	2	76 82	106	1272	14
	2	408 407			7	739	5		12	4	11	29 27	22 24	4	90	118	1319	
03-04			14	423				751 706			9		13					
315-415	3	419	13	435	7	785	4	796	11	4		24		3	43	59	1314	10.90
330-430	5	416	19	440	7	806	4	817	10	5	13	28	13	4	61 62	78	1363	10.
345-445	5	442	17	464	10	810	3	823	12	4	18	34	15	5	63	83	1404	!
04-05 PEAK HOUR	7	474	17	498	8	819	4	831	10	4	19	33	10	4	59	73	1435	!
																		i
04-05	7	474	17	498	8	819	4	831	10	4	19	33	10	4	59	73	1435	!

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County

Day: Wednesday

STREET TRAFFIC STUDIES LTD

Intersection of: Piney Branch Road Ray Drive-School DW MN and: Counted by: Bikes Only

Date : 02/14/18 Weather : Clear Entered by MN

 TIME	on:	C FROM Piney B	ranch Rd		TRAFFI on:	C FROM Piney B	SOUTH ranch Rd		TRAFFI	Ray Dr			on:	FIC FROM School	DW		TOTA N+S +
TIME	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT		LEFT			TOTAL	
AM]
06:30-45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	l
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	İ
7:00-15	0	ō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	i
15-30	Õ	1	Ö	1	õ	ŏ	Ö	ō	Ö	0	0	0	0	0	0	0	i
30-45	0	1	0	1	ő	ő	0	0	å	1	Ö	1	Ŏ	Ö	ō	ō	i
	_				0	0	0	0	0	Ö	0	ó	o o	ő	ő	0	:
45-00	0	0	0	0				-	-	0		0	0	0	0	0	ļ
8:00-15	0	1	0	1	0	0	0	0	0	_	0	-		_			ļ.
15-30	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	!
30-45	0	2	0	2	0	0	0	0	0	0	1	1	0	1	0	1	ļ
45-00	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	
9:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0]
15-30	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
AM																	ĺ
HOUR																	i
TOTALS	0	9	1	10	0	0	0	0	0	1	1	2	0	3	0	3	i
	U	9		10	U	U	U	Ü	Ū	•		_	Ü	Ü	•	Ū	i i
1 HOUR																	ļ i
TOTALS]				_		•	_		^					^	ō		!
330-730	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	ļ
645-745	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	!
07-08	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	ļ
715-815	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	
730-830 i	0_	3	.0	33	0	0	0.	0	O	1	0	11	0	1_	0	1	
745-845	0	4	C	4	0	0	0	0	0	0	1	1	0	2	0	2	
08-09	Ō	5	0	5	0	0	0	0	0	0	1	1	0	3	0	3	i
315-915	õ	4	Ö	4	ō	ō	Ō	Ō	0	Ó	1	1	0	3	0	3	i
830-930 I	0	5	0	5	ő	ő	o o	0	ů.	ō	1	1	0	2	0	2	i
,	U	9	U	J	U	v	v	U	Ü	v	•		•	-	•	-	1
PEAK HOUR 08-09	0	5	0	5	0	0	0	0	0	0	1	1	0	3	0	3	Ì
j	_	_	-														į
PM														_	_	_	!
)2:00-15	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	ļ
15-30	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
45-00	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00-15 i	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	ō	ō	ó	0	Ō	Ō	0	0	0	0	0	0	0	0	0	0	i
30-45 I	0	ō	ő	Ö	Ö	1	ŏ	1	ō	Ō	Ō	Ō	0	0	0	0	i
	ő	o	ő	0	o o	Ġ	0	Ö	0	Ö	Õ	ő	Ŏ	ō	Õ	ō	ĺ
45-00	_	-	-	_	_	_	0	0	0	0	0	0	0	0	0	0	i I
4:00-15	0	0	0	0	0	0		_		-		_		-	0		!
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_	0	!
30-45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	ļ.
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ļ
PM i																	
3 HOUR																	
TOTALS	0	1	0	1	0	2	0	2	1	1	0	2	0	0	0	0	1
HOUR	Ŭ	•	*	,	_	_	-	-	•	-							i
TOTALS																	ì
		4		4		4	0	4	4	Λ	n	4	0	0	0	0	1
02-03	0	1	0	1	0	1	0	1	1	0	0	1		0	0		I I
215-315	0	1	0	1	0	1	0	1	0	0	0	0	0			0	ļ
230-330	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	ļ
245-345	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1
03-04	0	0	0	0_	0.	1_	0	1	0	0	0	0	C	0	0	0]
315-415	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
330-430	Ö	ō	ō	0	0	1	0	1	0	0	0	0	0	0	0	0	1
345-445 I	Ö	0	Ö	ŏ	ő	ò	ő	Ö	0	1	0	1	Ō	0	Ö	0	İ
04-05	0	0	ő	Ö	0	0	ő	0	0	1	Ô	1	ő	0	Ö	0	i
	U	Ų	U	U	v	v	v	U	v	'	J	,	J		•	J	1
PEAK HOUR		1	0	1	0	1	0					1	0	0	0	0	1
02-03 i	0				Δ.	4	Λ	1	1	G	0	1	ก	ก	n	n	1

Company Name Street Traffic Studies

Location

Piney Branch Rd @ Ray Dr

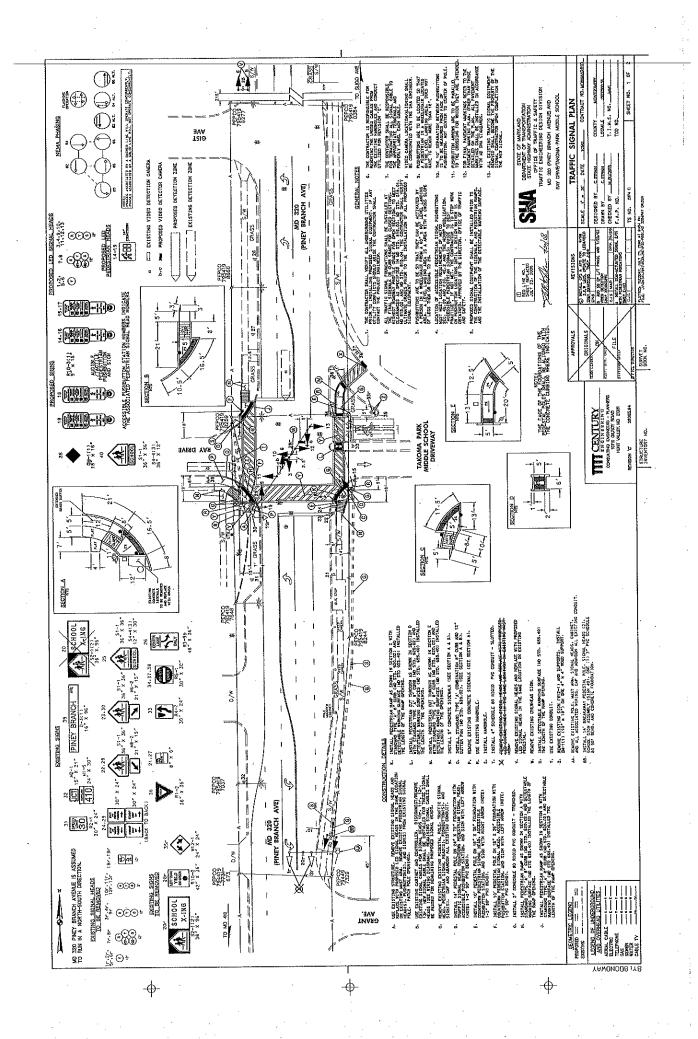
14-Feb-18

	Piney Branch	Piney Branch	School DW	Ray Dr
Crosswalk	North Leg	South Leg	East Leg	West Leg
Hour				0
06:30	0	0	0	2
06:45	0	0	0	3
07:00	0	1	3	5
07:15	0	1	2	0
07:30	0	16	15	7
07:45	0	27	24	28
08;00	0	34	63	25
08:15	1	0	0	3
08:30	0	3	0	1
08:45	0	3	2	5
09:00	0	3	1	2
09:15	0	3	0	3
14:00	0	3	0	4
14:15	0	1	2	2
14:30	0	2	2	4
14:45	0	0	0	0
15:00	0	105	98	16
15:15	1	11	10	5
15:30	0	0	3	1
15:45	0	5	2	1
16:00	0	11	6	3
16:15	0	30	24	6
16:30	0	10	6	6
16:45	0	3	1	2
TOTAL	2	272	264	134
AM Peak Vol		77	102	63
PM Peak Vol		121	1/3	23

886 Pineey Branch Rd (MD320) & Ray Dr & TPMS

HINGER 1 FINALISE 0 FINALISE		M G O O O O O O O O O O O O	* * * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	90		9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	800030030008	0 0 0 0 0 0 0 0 0 0 0 0	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			9
	0003003000003	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	002002	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	0 2 0 0 2 0 0 0 0 8 1	0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	2002100008	0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	00 11 00 00 0 23 1	0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000000000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	0 2 0 0 0 0 8 1	0 0 0 0 0 0		0 0 0 0 1 4 1 3 3 3 3		000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	# 00008	0 0		0 0 0 1 1 1 1 2 3 3 3 3		0 0	0
		0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		00	0 0 0 0	4 40 00 00 00 00 00 00 00 00 00 00 00 00
		0 0	0 0 4 0 0	0 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0.05	0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		0 0	0 4 0 45	0 0 0 38	0 09	0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	0 0 25	0	4 0 45	.4 0 35 35	0.	0 0 0 0	0 45
	DS 0	0	45	35	05	0	45
	S 1	Control of the contro	45	35	50	0.	2 5
	1			35		0.000	45
	2	0.000	\$		22		
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0		g	0.000	Total of the second	0.200
0 0 0 0 0	0	0		0	0	0	0
9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0.	100 mg/s/200	0	0	0	0
0 0 5 3	4		J		***	2	Þ
0 0	2	0			2		7
0 0			0		0.000	Wastropasts	100 to 0.00
		**************************************	100 Com \$ 200 Com	2		S	ç
	0	0		G.	0.75	0	Q
Deliverine.	0	0	0	0	9	0.000	0 ()
	0	0	a		0	0.000	q
TIME B4	0		0	•	0	5000 0000 0000	0
CARS WT		0.		0 (10)	0		0
sterio o	S 0	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	0.000	•	0	0	0
TTREDUC 0	0.000	0	a	6	0	•	0
MIN GAP D	g	. 0	0.0000	•	0	G	D
	•	(0.00) (0.00) (0. 00) (0.00)	0	0.000	0	0	0

B 38 NONE		
		28525555
		WYSER X550 X55
on ⊔	8 38 NONE	8 88 PM
ō	ō	ō
Z	LOS SECTIONS	
	7 0 NONE	7 0
O O	⊳о ш	N 0 #
~ ~ ~	7 0 8	
9	y	5
		10.550 (550)
		0.0000000000000000000000000000000000000
ㅇ + 의	5 40 X NONE	X 35 MONF
X & AD NONE	5	
χž	χŽ	׎
S 20 NONE	S 20 NONE	S 20 NONF
v 5: m	w S w	ın 9. ıı
z	Z	Z
¥	Y	y
		3.7555555555555555555555555555555555555
		286000000000000000000000000000000000000
A 4 A		45 45 45 44
4.4 À	4 4 9	4 4 7
ō	ō	
Z	40 40 NONE	
		100000000000000000000000000000000000000
m O w	m O m	m O w
.	Z Z	3 NONE
NONE 0 3	3 0 NONE	200 E
		- (000) MSS 100
50 X NONE	~ S ×	Z SS X NONE
		V05504459455
m	YONE	<u> </u>
్ గ్	5	5
ž	Ž	Z
	. 1 NONE	
NONE 1	1 NONE	
Ž	Ž	1 0 NONE
0	Q	Q
	0.0000000000000000000000000000000000000	- Weeks Weeks
#	"	"
0	ō	ō
S	Σ	
뽔디문뽔	끊 쓴 균 끊	₩ ∟ ≃ ₩
88 <u>F</u> 88	25 F 25	88 F 92 8
PHASE SPLIT1 COORD PHASE	PHASE SPLT.: COORI PHASE	PHASE SPLIT COOR PHASE
PHASE SPLIT 1 COORD PHASE MODI	PHASE COORI PHASE	SPLIT COOR
PHASE SPLIT1 COORD PHASE	PHASE COORI PHASE	PHASE SPLIT COOR
PHASE SPLIT1 COORD PHASE	PHASE SPLT; COORI PHASE	PHASE SPLIT COOR
PHASE SPLIT1 COORD PHASE	PHASE SPLIT: COORI PHASE	PHASE SPLIT3 COORD PHASE MODE
PHASE SPLIT 1 COORD PHASE	PHASE SPLT: COORI	PHASE SPLIT COOR
PHASE SPLT.1 COORD PHASE	PHASE SPLIT: COORING	PHASE SPLIT COOR PHASE
PHASE SPLIT.1 COORD PHASE	PHASE SPLTT COON PHASE	PHASS SPLIT COOR
PHASE SPLIT.1 COORD PHASE	PHASE SPLIT: COODII	PHASE SPLIT COOR PHASE
PHASE SPLIT1 COORD PHASE	PHASE SPLIT: COORI	PHASS SPLIT COOR PHASS
PHASE SPLT1 COORD PHASE	PHASE SPLTT COOR	PHASE SPLIT COOR PHASE
PHASE SPLT1 COORD PHASE	PHASE SPLIT. COOR	PHASE SPLIT COOR PHASE
PHASE SPLT1 COORD PHASE	PHASE SPLTT COOR	PHASE SPLIT COOD PHASE
		PHASE SPLIT COOD PHASE
		PHASE SPUT COOD
		ISVHH SPUZ SPOZ SPOZ SPOZ SPOZ SPOZ SPOZ SPOZ SPO
		PHASE COCO
		ISVHd LINGO SVHd
3 PHASE 100 SPLT1 0 COORD PM PHASE		SWHd
		SWHd
		SWHd
		SWHd
3 100 100 PM	8:00-7:00	SYHd
3 100 100 PM	8:00-7:00	SYHd
3 100 100 PM	8:00-7:00	SYHd
3 100 100 PM	8:00-7:00	SYHd SYHd
3 100 100 PM	8:00-7:00	SYHA
3 100 100 PM	8:00-7:00	SYHd
	8:00-7:00	SYHA
3 100 100 PM	8:00-7:00	SYHd
3 100 100 PM	8:00-7:00	syrid SYHd
3 100 100 PM	8:00-7:00	SYHd
3 100 100 PM	8:00-7:00	SYNA SYNA SYNA
2 3 3 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9:30-3:00 3:00-7:00	SYMA
2 3 3 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9:30-3:00 3:00-7:00	SYNA SYNA SYNA
2 3 3 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9:30-3:00 3:00-7:00	SYHA
2 3 3 100 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9:00-3:00 9:00-7:00	
	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 100 100 100 0 0 0 AM Mid PM	9:00-3:00 9:00-7:00	
1 2 3 3 2 20 20 200 200 0 0 0 0 0 0 0 0 0	6,000,330 9,30,3:00 3,00,7:00	



STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY STSLTD STSLTD STSLTD STSLTD STSLTD

Location : Montgomery County
Date : 02/21/18
Weather : Clear

Day: Wednesday

STSLTD STSLTD STSLTD STSLTD STREET TRAFFIC STUDIES ŁTD

Piney Branch Road Philadelphia Ave Intersection of: and: SN Counted by:

Entered by SN

	TRAFFI on:	C FROM Piney B	NORTH ranch Rd		TRAFFI on:	C FROM Piney B	SOUTH Iranch Ro		TRAFFI on:	Ç FROM Philadel	WEST phia Ave	***	TRAFF on:	FIC FRO! Philade	lphia		TOTAL N+S
TIME [RIGHT	THRU	LEFT	TOTAL.	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL				TOTAL	
		********														4.0	0.45
36:30-45	0	26	4	30	2	159	10	171	7	101	17	125	1	17	1	19	345 398
45-00	0	35	5	40	4	162	8	174	4	119	19	142	4	37	1	42	
7:00-15	0	30	6	36	6	181	9	196	9	107	15	131	5	33 56	3 10	41 70	404 434
15-30	4	41	4	49	2	165	9	176	7	112	20	139	4		4	60	458
30-45]	0	79	. 3	82	4	148	9	161	14	125	16	155	11 16	45 54	9	79	459
45-00	0	68	2	70	14	152	23	189	10	96	15 20	121 127	16	66	8	90	476
)8:00-15	0	65	8	73	13	140	33	186	13	94 110	20 16	132	5	48	8	61	460
15-30	0	59	5	64	10	171	22	203 162	6 15	109	20	144	12	56	4	72	435
30-45	0	50	7	57	12	128	22		7	111	17	135	6	50	13	69	434
45-00	0	52	11	63	12	124	31	167	9	80	13	102	15	62	2	79	386
09:00-15	0	54	10	64	12	116	13	141		82	11	102	11	58	1	70	356
15-30 AM	0	50	8	58	11	108	9	128	7	02	11	100	11	50		, 0	555
3 HOUR						4	466	0054	400	1016	400	1553	106	582	64	752	l 5045
TOTALS	4	609	73	686	102	1754	198	2054	108	1246	199	1000	100	302	04	132	5045
1 HOUR																	
TOTALS [,		455		007	20	747	27	439	71	537	14	143	15	172	l 1581
630-730	4	132	19	155	14	667 656	36 35	717 707	34	463	70	567	24	171	18	213	1694
645-745	4	185	18	207	16 26	646	50	707	40	440	66	546	36	188	26	250	1755
07-08	4	218	15 47	237	26 33	605	74	712	44	427	71	542	47	221	31	299	1827
715-815	4	253	17	274 289	41	611	74 87	739	44	425	67	535	48	213	29	290	1853
730-830	0 0	271	18 22	269 264	41	591	100	740	44	409	71	524	49	224	29	302	1830
745-845	0	242 226	31	264 257	49	563	108	718	41	424	73	538	39	220	33	292	1805
08-09 815-915	. 0	215	33	248	46	539	88	673	37	410	66	513	38	216	27	281	1715
830-930	0	206	36	242	47	476	75	598	38	382	61	481	44	226	20	290	j 1611
PEAK HOUR	, -	200	30	272	-41	410	, ,										Ì
730-830	0	271	18	289	41	611	87	739	43	425	67	535	48	213	29	290	1853
PM	 								477		44	440	12	65	8	85	 368
)2:00-15	1	80	4	85	10	72	6	88	17	82	11	110	12	87	5	105	I 405
15-30	3	100	6	109	7	86	7	100	8	66	17	91 101	25	80	12	117	1 429
30-45	0	107	4	111	3	86	11	100	10	75	16	93		86	3	103	371
45-00] 2	89	5	96	5	65	9	79	13 20	67 51	13 17	93 88	14 16	67	3	86	397
03:00-15	0	117	4	121	19	72	11	102 92	15	72	18	105	11	104	2	117	424
15-30	7	100	3	110	9	73	10	113	7	69	11	87	22	114	5	141	1 486
30-45	1	138	6	145	14 8	89 92	10 10	113	, 21	81	8		19	101	5	125	494
45-00	1	144	4	149	13	92 97	3 U	119	16	87	15		24	77	10	111	504
04:00-15	0	156	0 6	156 154	13	97 85	16	112	21	65	9		16	89	6	111	472
15-30] 1 2	147 172	10	184	12	103	13	128	13	62	18		12		5	134	•
30-45 45-00	2 1	172	11	187	7	89	16	112	15	91	16		15	102	3	120	541
PM	' '	173	11	107	,		.5		.5								Î I
3 HOUR TOTALS 1 HOUR	 19 	1525	63	1607	118	1009	128	1255	176	868	169	1213	199	1089	67	1355	5430
TOTALS	İ															440	4,000
02-03	j 6	376	19	401	25	309	33	367	48	290	57		64	318	28	410	1573
215-315	j 5	413	19	437	34	309	38	381	51	259	63		68	320	23	411	1602
230-330	9	413	16	438	36	296	41	373	58	265	64		66	337	20	423	1621
245-345	10	444	18	472	47	299	40	386	55	259	59		63	371	13	447	
03-04	9	499	17	525	50	326	41	417	63	273	54		68	386	15	469	1801, 1908
315-415	1 9	538	13	560	44	351	39	434	59	309	52		76			494	•
330-430	3	585	16	604	46	363			65	302	43		. 81		26 26	488 481	2009
345-445	4	619	20	643	44	377	48	469	71	295	50		71 67			476	
04-05	4	650	27	681	43	374	54	471	65	305	58	428	0/	305	24	410	2000

681

43

374

PEAK HOUR

04-05

305

428

471

385

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

SN

Intersection of:

Counted by:

and:

Piney Branch Road

Philadelphia Ave

STSLTD STSLTD STSLTD STSLTD STSLTD

Bikes Only

Weather : Clear

Entered by SN

Location: Montgomery County

Date : 02/21/18

Day: Wednesday

STSLTD STSLTD STSLTD STSLTD STREET TRAFFIC STUDIES LTD

TOTAL TRAFFIC FROM WEST TRAFFIC FROM EAST TRAFFIC FROM SOUTH TRAFFIC FROM NORTH N+S on: Philadelphia Ave on: Philadelphia Ave Piney Branch Rd on: Piney Branch Rd on: ______ _ ______ TIME E + W LEFT THRU RIGHT TOTAL RIGHT THRU LEFT TOTAL RIGHT THRU LEFT TOTAL LEFT THRU RIGHT TOTAL AM O 06:30-45 45-00 07:00-15 O O 15-30 30-45 O 45-00 08:00-15 n n O a 15-30 Ð 30-45 n 45-00 09:00-15 n 15-30 AM 3 HOUR G TOTALS 1 HOUR **TOTALS** O 630-730 O a O 645-745 Ð 07-08 715-815 730-830 Ö ō 745-845 O 0 | 08-09 Û 815-915 n 0 1 O 830-930 PEAK HOUR O G 08-09 PM O 02:00-15 n ß O Λ n 15-30 n 30-45 n n 45-00 n O 03:00-15 O 15-30 Q 30-45 O 45-00 ถ 04:00-15 Û 15-30 O n Ð 30-45 O Ð 45-00 PM 3 HOUR TOTALS 1 HOUR TOTALS Ð O n n O 02-03 Λ O O 215-315 n O 230-330 n O 245-345 O 03-04 0 i O O 315-415 330-430 345-445 04-05 PEAK HOUR 1 j 10 j O 330-430

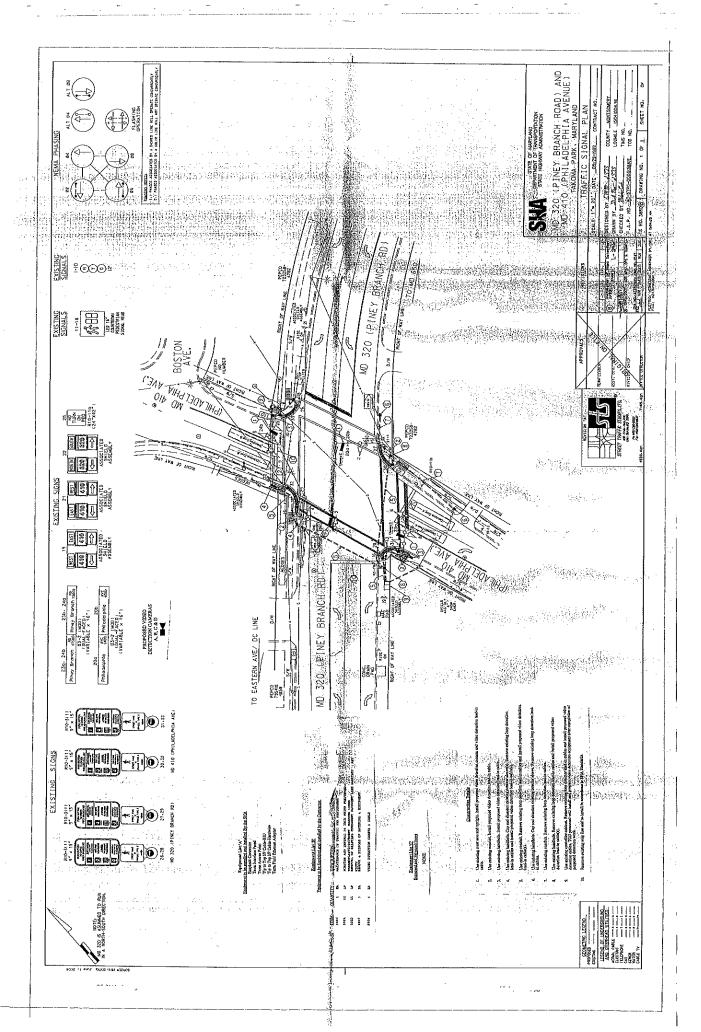
Company Name Street Traffic Studies
Location Piney Branch Rd @ Philadelphia Ave
Date 21-Feb-18

	Piney Branch Rd	Piney Branch Rd	Philadelphia Ave	Philadelphia A
rosswalk	North Leg	South Leg	East Leg	West Leg
Hour				0
06:30	1	3	0	0
06:45	0	0	1	1
07:00	0	0	0	0
07:15	0	2	4	0
07:30	1	2	2	0
07:45	0	1	6	0
08:00	1	7	5	0
08:15	1	1	2	0
08:30	0	4	3	0
08:45	2	28	14	0
09:00	0	32	9	0
09:15	О	0	0	0
14:00	0	0	0	0
14:15	0	2	1	1
14:30	1	2	0	0
14:45	1	5	2	0
15:00	O	1	6	0
15:15	2	0	4	o
15:30	3	4	1	o
15:45	2	7	6	0
16:00	2	17	5	1
16:15	3	5	7	0
16:30	1	6	3	3
16:45	4	2	2	1
			\$	
TOTAL	25	131	83	7
M Peak Vol	3	111	15-	0
M Peak Vol	7	12		0

885 Piney Branch Rd(MD320) & Philadelphia Ave

PHASE	7	Section 12 Comments	Ct.	4	5	9	7	w	
MIN GRN	0	30	0	3 3 3 3 4 4 4 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	9	30	**************************************	8	
BKMGRN	0	0	0		0	0	0	0	
CS MGRN	0	0	0		0	0	0	0	
DLYGRN	0	33 y y y y y	0	0	0	0	0	0	
WALK	0	Andrew OT Company	0	200 (200 Z . 110 (200)	0			0	
WALKZ	0	0	0	0	0	0	0	0	
WLKMAX	0	0	0	0	0	0.000	0	0	
PED CLR	0	1.5	0	15	0	15	9	0	
PD CLR2	0.000	0.	0	0	0	0	0	0	
PCMAX	. 0			5 5 5 5 5 5 5 6 5 5 5 5 6 5 6 5 6 5 6 5	0	0	0	0	
PED CO	0		9	0.55	0	0	0	o	
VEHEXT	0	one di la contrata productione di la	0	4 manual 4 manual 4	7	0	9	4	
унехт			0		0	0	0	0	
MAX	0	20 05	0	9000000048	38	20	0	54	
MAXZ	0	05	0	45 (0.00)	32	50	0	45	
MAX3			0	0	0	(2) 1 m 12 y 0 m 2 m 12 m 2	0	0	
DYM WAX	0		0	0.000	0	0.000	0	0	
ружятр	0	0	0	0	0	0.00	0	o	
YELLOW	3		3	***************************************	*	# 1	3	4	
REDCLR	0		0	2		2		2	
RED MAX	0	0	0		0		0	0	
RED RYT	S	unionella s allandari	s)	Sanatti gartigata	9	10 e 11 e 12 e 13 e 14 e 15 e 16 e 16 e 16 e 16 e 16 e 16 e 16	2	ю	
ACTBA	0		0		0	0	0	0	
SEC/ACT	0	and in the order of	0	121 - 121 -	0	The state of the state of	0	0	
MAXINT			0		0	0 3 10 10	0		
TIME B4	0	0	0	0	0	0	0	o	
CARSWT	0	0.000	0	0.000	0	0	0	0	
STPTDUC	0	Andreas of organizations	0	0	0	\$2000 CO. CO. CO. CO. CO. CO. CO. CO. CO. CO.	0	0	
TTREDUC	0	0.000	0	0	0	0.000	0	0.55	
MIN GAP	0	Selection of commercial	0		0	1900 1900 0 00 1900 1900	0	0	
Spart Statement and a second				*** *** *** *** *** *** *** *** *** **					

<u>8</u>	100 0 AM 6:00:9:30	100 0 0 Mid 9:50-3:00	3.00 0 0 PM 3:00-7:00	SPUT1 CCORD PHASE MODE PHASE SPUT2 COORD	T T T T T T T T T T T T T T T T T T T	NONE NONE SES SES SES SES SES SES SES SES SES S	NONE NONE O	S S S S S S S S S S S S S S S S S S S	NONE 6	, 655 X NONE NO 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	NONE 35
				PHASE MODE PHASE MODE PHASE MODE				NONE O	N SS ON THE SECOND SECO	a sekal	NOONE SE



STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of:

and: Counted by:

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

STREET TRAFFIC STUDIES

Grant Avenue Chestnut Avenue-School DW NG

Location: Montgomery County
Date: 02/14/18
Weather: Clear
Entered by MN

Day: Wednesday

LTD

															* ****** **	**********	
TIME	on:	C FROM School I	NORTH DW		TRAFFI on:	C FROM Chestni	SOUTH at Ave		TRAFFI on:	C FROM Grant A	WEST		TRAFF on:	FIC FROM	M EAST ve	***************************************	TOTAL N+S
į	RIGHT	THRU	LEFT	TOTAL		THRU	RIGHT	TOTAL	RIGHT			TOTAL	LEFT			TOTAL	E+W
AM			·														
06:30-45	0	0	0	0	2	0	0	2	0	0	1	1	0	1	1	2	
45-00	0	0	0	0	1	1	0	2	1	2	0	3	0	1	1	2	
7:00-15	0	0	0	0	0	3	0	3	1	2	0	3	0	8	0	8	
15-30	ō	ō	0	0	1	0	0	1	2	2	4	8	O	7	5	12	
30-45	ō	1	ō	1	1	3	0	4	3	3	5	11	5	9	8	22	
45-00	1	3	ő	4	i	10	1	12	2	11	33	46	4	17	9	30	
8:00-15 I	1	2	3	6	2	18	Ö	20	1	19	24	44	8	10	20	38	1
15-30	1	1	2	4	3	2	1	6	2	9	1	12	0	9	1	10	i
30-45	0	ó	0	0	ő	0	2	2	2	11	i	14	ō	13	3	16	
	2	Ö	1	3	2	0	0	2	2	17	3	22	2	12	0	14	
45-00	0	0	ò	0	1	0	3	4	4	29	2	35	13	56	3	72	1
9:00-15						•		2	0	20	3	23	8	29	2	39	
15-30	0	0	0	0	1	0	1	2	U	20	3	23	٥	23		33	
AM [
3 HOUR	_	_			4.5	o=	•		00	405	77	000	40	470	53	265	5
TOTALS	5	7	6	18	15	37	8	60	20	125	77	222	40	172	33	205	, ,
1 HOUR																	
TOTALS		_	_		_		_	_		_	_	4 10		47	-	24	
630-730	0	0	0	0	4	4	0	8	4	6	5	15	0	17	7	24	
645-745	0	1	0	1	3	7	0	10	7	9	9	25	5	25	14	44	
07-08	1	4	0	5	3	16	1	20	8	18	42	68	9	41	22	72	1
715-815	2	6	3	11	5	31	1	37	8	35	66	109	17	43	42	102	2
730-830	3	7	5	15	7	33	2	42	8	42	63	113	17	45	38	100	2
745-845	3	6	5	14	6	30	4	40	7	50	59	116	12	49	33	94	
08-09	4	3	6	13	7	20	3	30	7	56	29	92	10	44	24	78	2
815-915	3	1	3	7	6	2	6	14	10	66	7	83	15	90	7	112	2
830-930 PEAK HOUR	2	0	1	3	4	0	6	10	8	77	9	94	23	110	8	141	2
730-830	3	7	5	15	7	33	2	42	8	42	63	113	17	45	38	100	2
PM I																	[
02:00-15	1	0	0	1	2	0	2	4	2	2	1	5	1	3	2	6	
15-30	0	0	0	0	0	1	2	3	3	7	6	16	0	2	0	2	
30-45	0	1	1	2	2	2	1	5	2	8	4	14	0	6	0	6	
45-00	0	0	1	1	3	2	0	5	1	10	10	21	1	3	0	4	
03:00-15	7	1	1	9	3	1	0	4	2	12	2	16	5	6	1	12	
15-30	0	1	3	4	1	0	2	3	3	6	3	12	0	4	1	5	
30-45	0	2	2	4	0	3	8	11	1	9	3	13	1	7	0	8	1
45-00	1	2	1	4	2	3	4	9	1	19	2	22	13	47	7	67	j 1
04:00-15	i	1	2	4	2	3	1	6	2	13	3	18	7	34	9	50	ĺ
15-30	2	1	4	7	3	2	0	5	1	4	7	12	0	7	2	9	ĺ
30-45	2	ò	i	3	2	1	1	4	1	7	2	10	1	10	0	11	Ì
45-00	0	0	i	1	2	1	Ó	3	2	11	0	13	1	12	3	16	
PM I	٠	~	'		-		•										i
3 HOUR																	ĺ
TOTALS	14	9	17	40	22	19	21	62	21	108	43	172	30	141	25	196	j 4
1 HOUR	1-7	•	"	-10													i
TOTALS																	i
•	1	1	2	4	7	5	5	17	8	27	21	56	2	14	2	18	i
02-03	7	2	3	12	8	6	3	17	8	37	22	67	6	17	1	24	
215-315	7	3	6	16	9	5	3	17	8	36	19	63	6	19	2	27	; i
230-330			7		7	6	10	23	7	37	18	62	7	20	2	29	•
245-345	7	4	7	18 24		7	10	23 27	7	37 46	10	63	19	64_	9	92	1 2
03-04	8	6	_	21	6			29	7	47	11	65	21	92	17	130	1 2
315-415	2	6	8	16	5	9	15		5	47 45	15	65	21	95	18	134	1 2
330-430	4	6	9	19	7	11	13	31	5 5		14	62	21	98	18	137	•
345-445	6	4	8	18	9	9 7	6	24		43 35	12	53	9	63	14	86	4
04-05	5	2	8	15	9	1	2	18	6	30	12	00	J	03	14	00	¦ '
PEAK HOUR		_	_					6.4	-		40	0.5	04	or	4.0	404	 2
330-430	4	6	9	19	7	11	13	31	5	45	15	65	21	95	18	134	1 2

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY Grant Avenue

NG

Chestnut Avenue-School DW

Intersection of:

Counted by:

and:

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County Date : 02/14/18

Day: Wednesday

STREET TRAFFIC STUDIES

LTD

Weather : Clear Entered by MN Bikes Only

TIME	TRAFFI on:		NORTH DW		TRAFFI on:	C FROM Chestru	SOUTH at Ave		TRAFFI	C FROM Grant A	WEST ve		TRAFF on:	FIC FROM Grant A	ve		TOTAL N+S
TIME				TOTAL	LEFT			TOTAL	RIGHT			TOTAL	LEFT			TOTAL	•
AM																	1
06;30-45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	·
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
15-30	Ō	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	•
30-45	ō	Ö	0	0	Ó	0	0	0	0	0	0	0	G	0	0	0	
45-00	ñ	ō	ō	ō	0	0	0	0	0	0	0	0	0	0	0	0	(
08:00-15	ő	ō	Õ	ŏ	ō	0	ō	0	0	0	0	0	0	0	0	0	<u>,</u>
15-30	å	Ô	Č	Ö	ő	ő	ō	0	ō	0	0	0	0	0	1	1	
30-45	ő	0	0	Ö	ō	0	0	Ö	Ö	ō	0	0	0	0	1	1	}
45-00	0	0	0	0	0	0	0	0	0	ő	0	0	ō	Õ	1	1	1
	_	0	0	0	0	0	0	0	0	0	0	0	ŏ	Ö	Ó	0	1
09:00-15	0	-			0	0	0	0	0	0	0	0	0	0	ő	0	1
15-30	0	0	G	0	U	U	U	U	U	U	U	v	•	v	U	U	! !
AM [! ;
3 HOUR	_	_	_			_	_	_					^		•	•	! !
TOTALS	0	0	1	1	0	0	0	0	0	1	0	1	0	0	3	3	!
1 HOUR																	!
TOTALS																	
630-730	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	ļ
645-745	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
07-08	0	0	0	0	0	0	0	0	Ð	1	0	1	0	0	0	0	
715-815	O	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	I
730-830	0	ō	ō	0	0	0	0	0	0	0	0	0	0	0	1	1	<u>i</u>
745-845	0	0	0	0	0	0	0	0	0	C	0	0	0	0	2	2	
08-09	Ö	ő	ő	ŏ	ō	Ö	0	ō	0	Ċ	0	0	0	0	3	3	i
815-915 I	0	ő	ő	0	0	0	Ö	ő	ō	0	ō	Ö	Ō	0	3	3	i
	0	Ö	0	0	0	0	0	0	0	0	0	o O	Ö	0	2	2	i
830-930	U	U	U	v	U	U	U	U	U	U	v		ŭ	•	_	_	i
PEAK HOUR			•	•			•		0	0	0	0	0	0	3	3	!
08-09	0	0	0	0	0	0	0	0	U	U	U	U	U	U	,	3	
PM													_	_		_	!
02:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ļ
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30-45	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	1
45-00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	l
03:00-15	0	0	0	O	0	0	0	0	0	0	0	0	0	0	0	0	j
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	İ
45-00	ő	ŏ	ő	Ö	ō	ő	Õ	ō	ō	0	0	0	0	0	0	0	i
04:00-15	0	0	0	Ö	ő	0	Ö	0	Ö	ō	Ö	0	0	1	ō	1	i
15-30	0	0	0	ő	o	0	0	Ö	0	ů.	Ö	0	ō	Ö	ŏ	Ċ	i
	0	0	0	0	0	0	0	0	0	0	0	o o	0	0	ő	0	i
30-45			_	-	0	0	0	0	0	0	Ö	0	0	0	ő	0	i
45-00	0	0	0	0	U	U	U	U	U	U	U	U	U	U	U	U	1
PM																	!
3 HOUR		_	_	_	_	_	_	_	•		_		_	4		,	!
TOTALS	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	1
1 HOUR																	ļ
TOTALS																	1
02-03	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
215-315	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
230-330	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
245-345	ō	Õ	0	ō	ō	Ō	0	0	0	1	0	1	0	0	0	0	1
03-04	ŏ	0	Ö	Õ	ő	ō	ō	0	0	0	0	0	0	0	0	0	İ
315-415	0	0	0	0	Ö	Ö	0	Ö	0	Û	0	0	Ō	1	0	1	i "
	0	0	0	0	0	0	0	ő	0	0	ő	ő	ů.	1	ŏ	1	i
330-430				0	0	0	0	0	0	0	0	Ö	0	i	0	1	ł
345-445	0	0	0							-		0	0	1	0	1	
04-05	0	0	0	0	0	0	0	0	0	0	0	U	υ	1	υ	1	!
PEAK HOUR									_				_	-	_	_	ļ
02-03	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	(

Company Name Street Traffic Studies Grant Ave @ Chestnut Ave

Location Date

14-Feb-18

	School DW	Chestnut Ave	Grant Ave	Grant Ave
Crosswalk	North Leg	South Leg	East Leg	West Leg
Hour				0
06:30	0	0	3	0
06:45	0	0	0	0
07:00	0	0	1	0
07:15	0	0	0	1
07:30	2	0	3	1
07:45	0	1	9	6
08:00	1	0	2	1
08:15	0	0	2	1
08:30	0	0	0	3
08:45	1	0	0	0
09:00	2	0	3	0
09:15	2	0	2	0
			water.	
14:00		0	1	0
14:15	0	0	2	0
14:30	0	1	1	2
14:45	0	0	1	0
15:00	10	3	1	4
15:15	0	0	0	0
15:30	1	0	1	0
15:45	2	0	0	0
16:00	0	0	2	0
16:15	4	0	4	0
16:30	1	1	0	0
16:45	0	0	0	0
				<u> </u>
				<u> </u>
TOTAL	26	6	38	19
AM Peak Vol	3	1	16	9
PM Peak Vol		3	٦	<u> </u>

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County

STREET TRAFFIC STUDIES

Intersection of: Grant Ave Darwin Ave and Holly Ave and: Counted by:

Date : 02/21/18 Weather : Clear Day: Wednesday LTD Entered by SN Counted by: NG/LG ERICHOUS ON TRAFFIC FROM WEST TRAFFIC FROM EAST | TOTAL |

	TRAFFI	C FROM Darwin	NORTH Ave		TRAFFIC on:	: FROM Holly Av	SOUTH e			C FROM Grant A	WEST ve		on:	Grant A	ve 		TOTAL N+S +
TIME	RIGHT	THRU	LEFT	TOTAL	LEFT							TOTAL		THRU	RIGHT	TOTAL 	E + W
											_	^		1	0	1	3
6:30-45	0	0	0	0	0	0	0	0	0	2	0	2	0 1	1	0	2	6
45-00	Õ	ō	0	0	3	0	0	3	1	0	0	1	Ó	1	0	i	9
7:00-15	1	ŏ	Ō	1	5	0	0	5	2	0	0	2	1	1	0	2	10
15-30	ò	ō	Ō	0	6	0	0	6	2	0	0	2	0	Ö	0	0	8
30-45	1	ŏ	0	1	5	0	0	5	2	0	0	2	-	3	0	3	33
45-00	2	ŏ	0	2	23	0	1	24	3	1	0	.4	0	2	0	3	44
8:00-15	3	0	ō	3	23	0	0	23	9	4	2	15	1	5	0	5	25
15-30	2	Ö	ō	2	10	0	0	10	7	0	1	8	0	0	1	1	21
	2	0	ō	2	6	2	0	8	8	2	0	10	0		0	7	28
30-45	1	3	ō	4	3	2	0	5	7	3	2	12	2	5	1	8	96
45-00	3	1	ő	4	51	1	1	53	23	6	2		2	5		7	67
9:00-15	2	1	ő	3	33	2	1	36	17	4	0	21	2	3	2	,	. 01
15-30	2	'		•													
AM [40	25(
3 HOUR	47	5	0	22	168	7	3	178	81	22	7	110	9	27	4	40	350
TOTALS	17	9		22	100	•	-										
1 HOUR																	
TOTALS		_	0	1	14	0	0	14	5	2	0		2		0	6	2
630-730	1	0			19	0	Ö	19	7	0	0	7	2	3	0	5	3
645-745	2	0	0		39	0	1	40	9	1	0	10	1	5	0	6	6
07-08	4	0	0		57	0	1	58	16	5	2	23	2	6	0		9:
715-815	6	0	0		61	0	1	62	21	5	3	29	1	10	0		11
730-830	8	0	0			2	1	65	27	7	3	37	1	10	1		12
745-845	9	0	0		62		o		31	9	5		3	12	1	16	11
08-09	8	3	0		42	4			45	11	5		4	15	2	21	17
815-915	8	4	0		70	5	1	102	55	15	4		6	13	4	23	21
830-930	8	5	0	13	93	7	2	102	55								[
PEAK HOUR	1					_	-	400	4	13	6	i 23	4	15	55	74	21
830-930	į 8	5	0	13	93	7	2	102	*	13	·						
PM			^	0	5	0	0	5	2	0	0) 2	0				
02:00-15	0	0			1	0	2		1	0	0) 1	0	1			•
15-30	į 0	0			3	1	1	-	4	1	1	6	C) 0	0	. 0	1 1
30-45	2					3	3	8	2				C	0	. 0	. 0	1
45-00	0				4	1	0	-	13				1	. 0	. 0	1	7
03:00-15	1	0			4		0	-	7				0) (0	0	1 2
15-30	2				7	0	0		16				() 1	C) 1	;
30-45	1	1			4	1			8				2	? 7	· 0) 9	1
45-00	2	1			31	0			7				() () 10	j (
04:00-15	1 4	0			24	2			13			2 15		. 2	2 (3	į ;
15-30	1 1	0	1 (15	1						4 12	() 1	i :
30-45	j 2	: 0			5	0			7			1 8			2 () 2	i '
45-00	0	. 1	į () 1	3	1	(4	,		,		•			•	1
PM	ĺ																i
3 HOUR	į											4 125		4 2	ς (29	1 3
TOTALS	i 15	; 6	3 2	2 23	106	8	12	126	87	24	24	4 135	•	, 2,	, ,		i
1 HOUR	i '`																i
TOTALS	1													^	2 (0 2	ì
02-03	2	2 ()	1 3	13	2	: (3 21	9			1 11					i
215-315				1 4	12	3	} {	3 21	20		-	3 26		-	•	-	1
230-330	1 5			1 9	18	3	3 4	4 25	26	-		7 38		-	-		1
				0 8	19	3	3	3 25	38					•		0 11	•
245-345 03-04		•	-	1 12	46	2		1 49	44			5 80		· · · · · · · · · · · · · · · · · · ·		0 20	
				1 15	66			3 72	38			4 72		2 1	-		
315-415				1 11	74			5 83	4			2 74		-	_		
330-430				1 11	75		-	6 84	3			1 56			-	0 23	
345-445				0 8	47			5 56	34	4	2	8 44		1 1	5	0 16	. [1
04-05	,	7	1		-41	-											
PEAK HOUR				7 681	43	37-	4 5	4 471	6	5 30	5 5	8 428	6	7 38	5 2	4 476	1 20
04-05	1 '	4 65	U 2	7 681	-1J	٠,٠	. •		_								

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY Grant Ave

Intersection of:

and:

STSLTO STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County
Date: 02/21/18
Weather: Clear

Day: Wednesday

STREET TRAFFIC STUDIES LTD

Darwin Ave and Holly Ave Bikes Only Counted by: NG/LG

Entered by SN

) 	TRAFFI on:	C FROM Darwin	NORTH Ave		TRAFFI on:	C FROM Holly Av	SOUTH re		TRAFFI on:	C FROM Grant A	WEST ve		on:	FIC FROM		 	
TIME	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL		THRU	RIGHT	TOTAL	
AM I						********	-				_	_		•	^	į	0
06:30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 1	
45-00 İ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 [0
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 1	0
15-30	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
30-45 j	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00 İ	0	0	0	0	2	0	0	2	0	7	0	7	0	0	0	0 [9
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	5
45-00	0	0	0	0	0	0	0	G	0	0	C	0	2	0	1	3	3
09:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM																	İ
3 HOUR																_	
TOTALS	0	0	0	0	2	0	0	2	0	14	G.	14	2	3	1	6	22
1 HOUR																	
TOTALS I															_		_
630-730	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
645-745	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3
07-08	0	0	0	0	2	0	0	2	0	9	0	9	0	1	0	1	12
715-815	0	0	0	0	2	0	0	2	0	9	0		0	3	0	3	
730-830	0	0	0	0	2	0	0	2	0	7	0	7	0_	2	0	2	11
745-845	0	0	0	0	2	0	0	2	0	12	0		0	2	0	2	
08-09	Ö	0	0	0	0	0	0	0	0	5	0		2	2	1	5	10
815-915	0	0	0	0	0	0	0	0	0	5	0		2	0	1	3	8
830-930	0	Ö	0	0	0	0	0	0	0	5	0	5	2	0	1	3	8
PEAK HOUR	-																1
745-845	0	0	0	0	2	0	0	2	0	12	0	12	0	2	0	2	16
PM		_	_	_				•	0	0	0	0	0	0	0	0	l 1 0
02:00-15	0	0	0	0	0	0	0	0	0 C	0	0		0	0	o o	Ö	i 0
15-30	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	iŏ
30-45	0	0	0	0	0	0	0	0	-	0	0	-	0	0	0	0	i 0
45-00	0	0	0	0	0	0	0	0	0	-	0		5	2	0	7	i 7
03:00-15	0	0	0	0	0	0	0	0	0	0			0	2	_	2	1 2
15-30	, 0	0	0	0	0	0	0	0	0	0	0		0	0		0	1 (
30-45	0	0	0	0	0	0	0	0	0	0	-	-	0	4	ő	4	1 7
45-00	0	0	3	3	0	0	0	0	0	0	0		0	1	0	1	
04:00-15	0	0	0	0	1	0	0	1	0	•	-		0	2	-	2	•
15-30	0	0	0	0	0	0	0	0	0	1	0					1	
30-45	[0	0	0	0	0	0			0	1	0		0	1 0		0	1 3
45-00	0	0	0	0	2	0	0	2	0	1	0	1	U	U	U	U	¦ `
PM 3 HOUR	I I																1
TOTALS	0	0	3	3	3	0	0	3	0	7	0	7	5	12	0	17	30
1 HOUR	: °	v		Ū	Ü	·		-	•								1
TOTALS	I .																1
02-03	i 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	j t
	1 0	0	0		ő	Ö			ō	0	ō		5	2	0	7	į į
215-315	0	0	0	-	0	ő		-	ő	0			5	4	0	9	į į
230-330 245-345	0	0	0		0	0	-		0	Ö		-	5		0	9	i
	1 0	0	3		0	0	-	_	0	ŏ			5		0	13	<u>i 1</u>
03-04	0				1	National Section 1997			0	4			0		0		1
315-415	0				1				Ö	5			ō				j 16
330-430	1 0				1	0	-		0	6			ō			8	
345-445	1 0				3				0	7			0			4	1 14
04-05	į v	U	U	v	J	U	U	,	•	•	•	•	-				i

PEAK HOUR

18 |

Company Name Street Traffic Studies

Location

Grant Ave @ Darwin Ave @ Holly Ave

Date

21-Feb-18

	Darwin Ave	Darwin Ave	Grant Ave	Grant Ave
rosswalk	North Leg	South Leg	East Leg	West Leg
Hour	Holiti Log			0
06:30	0	0	0	
06:45	0	0	0	
07:00	2	2	3	
07:15	2		0	
07:30	. 16	0	3	
07:45	94	1	6	
08:00	34	0	4	
08:15	2	0	6	
08:30	3	0	2	
08:45	3	0	1	
09:00	22	0	16	
09:15	1	1	2	
00.10				
14:00	0	0	1	
14:15	0	0	0	<u> </u>
14:30	0	0	1	ļ
14:45	2	1	6	
15:00	167	4	5	·
15:15	6	4	0	<u> </u>
15:30	8	2	0	
15:45	28	6	26	
16:00	20	0	18	
16:15	56	1	11	
16:30	15	0	5	<u> </u>
16:45	0	0	1	
				ļ
		<u> </u>		
	<u> </u>		447	7
TOTAL	481	22	117	6
AM Peak Vol	176		<u> </u>	
PM Peak Vol	209	16	<u> </u>	

STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Piney Branch Road

Intersection of:

STSLTD STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County

Date : 02/14/18

Day: Wednesday

STREET TRAFFIC STUDIES

LTD

Ray Drive-School DW Counted by: MŃ School Trips Only

Weather : Clear Entered by MN

TRAFFIC FROM NORTH TRAFFIC FROM SOUTH TRAFFIC FROM WEST TRAFFIC FROM EAST TOTAL I on: Piney Branch Rd Piney Branch Rd Ray Dr School DW N + Son: on: on: TIME RIGHT THRU LEFT TOTAL LEFT THRU RIGHT TOTAL RIGHT THRU LEFT TOTAL LEFT THRU RIGHT TOTAL | E+W -----------AM 06:30-45 O O ብ ß 0 1 45-00 ß 07:00-15 O 15-30 30-45 45-00 08:00-15 15-30 30.45 a n Ð O O O O 4 | 45-00 O n O 09:00-15 a O O O 15-30 ΑM 3 HOUR **TOTALS** 1 HOUR **TOTALS** 630-730 645-745 07-08 O O n Ð 715-815 Ð 730-830 O O 745-845 08-09 815-915 830-930 Đ PEAK HOUR | 730-830 ΡМ 02:00-15 O 15-30 n n 30-45 O 45-00 Ð Ð 03:00-15 15-30 Đ 30-45 45-00 04:00-15 13 j 15-30 30-45 45-00 PM 3 HOUR Ð TOTALS 1 HOUR TOTALS 02-03 215-315 230-330 245-345 03-04 O Ð 315-415 330-430 ß 345-445 n n n Λ Λ

04-05

PEAK HOUR 245-345

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD VEHICLE TURNING MOVEMENT COUNT - SUMMARY

STSLTD STSLTD STSLTD STSLTD

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

Location: Montgomery County
Date: 02/14/18
Weather: Clear
Entered by MN Intersection of: Grant Avenue Chestnut Avenue-School DW and: Counted by: School Trips Only NG

STREET TRAFFIC STUDIES LTD Day: Wednesday

 	on:	C FROM School (WC		on:	Chestn			TRAFFI on:	Grant A	ve		on:	FIC FROM Grant A	ve		TOTA
TIME	RIGHT	THRU		TOTAL		THRU		TOTAL	RIGHT	THRU	LEFT	TOTAL		THRU		TOTAL	1
AM		management A	H-1-1-1-1-1								***************************************						
6:30-45	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	ĺ
45-00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	İ
7:00-15	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	į
15-30	0	0	0	0	0	0	Ô	0	0	0	4	4	0	0	5	5	i
30-45	Õ	1	ő	1	ő	3	Ö	3	Ö	Ö	5	5	Ō	ō	8	8	i
	4	3	0	4	0	10	0	10	0	0	33	33	0	0	9	9	! !
45-00			_		0		0		0	O O		24	0	0	20	20	!
8:00-15	1	2	3	6	-	18		18		_	24		-				!
15-30	1	1	2	4	0	2	0	2	0	0	1	1	0	0	1	1	!
30-45	0	0	0	0	0	0	0	C	0	0	1	1	0	0	3	3	!
45-00	2	0	1	3	0	0	0	0	0	0	3	3	0	0	0	0	ļ
9:00-15	0	0	0	0	0	0	0	0	0	0	2	2	0	0	3	3	
15-30	0	0	0	0	0	0	0	0	0	0	3	3	0	0	2	2	1
AM j																	
3 HOUR j																	
TOTALS	5	7	6	18	0	37	0	37	0	0	77	77	0	0	53	53	i
1 HOUR	-	•	-		-												i
TOTALS																	i
330-730	0	o o	0	0	0	4	0	4	0	0	5	5	0	G	7	7	i
345-745	0	1	0	1	0	7	0	7	0	0	9	9	0	0	14	14	i
	-		-		_		_		-	-		42	0	0	22	22	1
07-08	1	4	. 0	5	0	16	0	16	0	0	42						I 1
715-815	2	6	3	11	0	31	0	31	0	0	66	66	0	0	42	42]
730-830	3		5_	<u>15</u>	0	33	0	33	0	0_	63	63	0_		38	38	<u> </u>
45-845	3	6	5	14	0	30	0	30	0	0	59	59	0	0	33	33	1
08-09	4	3	6	13	0	20	0	20	0	0	29	29	0	0	24	24	•
315-915	3	1	3	7	0	2	0	2	0	0	7	7	0	0	7	7	j
330-930	2	0	1	3	0	0	0	0	0	0	9	9	0	G	8	8	1
EAK HOUR																	1
715-815	2	6	3	11	0	31	0	31	0	0	66	66	0	0	42	42	
PM															_		
)2:00-15	1	0	0	1	0	0	0	0	0	0	1	1	0	0	2	2	
15-30	0	0	0	0	0	1	0	1	0	0	6	6	0	0	0	0	1
30-45	0	1	1	2	0	2	0	2	0	0	4	4	0	G	0	0	1
45-00 j	0	0	1	1	0	2	0	2	0	0	10	10	0	0	0	0	1
3:00-15 Ì	7	1	1	9	0	1	0	1	0	0	2	2	0	0	1	1	1
15-30	0	1	3	4	0	0	0	0	0	0	3	3	0	0	1	1	ĺ
30-45	Õ	2	2	4	ō	3	Ō	3	Ö	0	3	3	0	ō	0	0	i
45-00	1	2	1	4	0	3	ő	3	0	ő	2	2	0	ŏ	7	7	i
4:00-15	i	1	2	4	0	3	0	3	0	0	3	3	0	0	9	9	i
	2	i	4	7	0	2	0	2	0	0	7	7	0	0	2	2	<u> </u>
15-30			•		_				0	0	2	2	0	0	0	0	1
30-45	2	0	1	3	0	1	0	1									
45-00 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	3	3	
•																	!
3 HOUR							_					10	^	_	0.5	0.5	!
TOTALS	14	9	17	40	0	19	0	19	0	0	43	43	0	0	25	25	ļ
HOUR																	Į.
TOTALS																	
02-03	1	1	2	4	0	5	0	5	0	0	21	21	0	0	2	2	
215-315	7	2	3	12	0	6	0	6	0	0	22	22	0	0	1	1	
230-330	7	3	6	16	0	5	0	5	0	0	19	19	0	0	2	2	ĺ
245-345	7	4	7	18	ō	6	Ō	6	O	G	18	18	0	0	2	2	i
03-04	8	6	7	21	ő	7	ō	7	0	ō	10	10	0	Ō	9	9	i
315-415	2	6		16	<u>v</u>	9	0	9	0	0	11	11	0	0	17	17	<u> </u>
	4	6	9	19	0	11	0	11	0	0	15	15	ő	0	18	18	}
330-430										-							Į.
345-445	6	4	8	18	0	9	0	9	0	0	14	14	0	0	18	18	1
04-05	5	2	8	15	G	7	0	7	0	0	12	12	0	0	14	14	!
PEAK HOUR																	
330-430	4	6	9	19	0	11	0	11	0	0	15	15	0	0	18	18	1

APPENDIX C CAPACITY WORKSHEETS - EXISTING CONDITIONS

	1	F	1	ሻ	†	<i>></i>	1	 	لړ	*	<i>/</i> *
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER Ø4
Lane Configurations		M			14		ካ	1→		W. (
Traffic Volume (vph)	7	6	4	0	591	1	3	724	178	0	0
Future Volume (vph)	7	6	4	0	591	1	3	724	178	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	0	rulleders (ace i a se su racisco se	0	110	-rojastinastranski vanska	0	0	0
Storage Lanes	80 80 20 88 1	9 5 7 1	0	0		0	1		0	0	0
Taper Length (ft)		25		25			25			25	
Lane Util. Factor	1,00	1,00	1.00	1.00	1,00	1,00	1.00	1.00	1.00	1.00	1,00
Frt		0.972				A to Control (1997 April 1904 See		0.970	Veed a veed to the Earle V o		
Flt Protected		0.962					0.950				
Satd. Flow (prot)	0	1742	0	0	1863	0	1770	1807	0	0	0
Flt Permitted		0.962					0.315				
Satd. Flow (perm)	0	1742	0	0	1863	0	587	1807	0	0	0
Right Turn on Red	•		Yes			Yes			Yes		
Satd. Flow (RTOR)		65	::::::::::::::::::::::::::::::::::::::					16			
Link Speed (mph)		30	endageneraanse Saastanes astan		30			30		30	
Link Distance (ft)		749			186			555		157	
Travel Time (s)		17.0			4.2			12.6		3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	7	4	0.02	642	7	3	787	193	0.02	0
Shared Lane Traffic (%)	an en a Y an			**************************************	Y 15				90 (51 .99		Υ
Lane Group Flow (vph)	===0	19	0	0	643	0	- 3	980	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)		12			12	ייישניי	LVIL	12	יייטייי	0	901
Link Offset(ft)					0			.0		Ö	
Crosswalk Width(ft)		16	1914289750179988		16			16		16	
Two way Left Turn Lane											900000000000000000000000000000000000000
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	1.00		9	15	9
Turn Type	Prot	Prot	X.	10	NA	· ·	Perm	NA	Y	iv.	•
Protected Phases	- 8	8			2			6			4
Permitted Phases	•						6	.			
Minimum Split (s)	24.0	24.0		ecues Cesses	24.0	1941 (2015 CH)	24.0	24.0			24,0
Total Split (s)	24.0	24.0			102.0	1889 1884 I CO 688	102.0	102.0			48.0
Total Split (%)	16.0%	16.0%			68.0%		68.0%	68.0%			32%
Maximum Green (s)	18.0	18.0			96.0		96.0	96.0			42.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0			4.0
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0			2.0
Lost Time Adjust (s)	2.0	0.0			0.0		0.0	= = 0.0	SELECTION -		2,0
Total Lost Time (s)		6.0			6.0		6.0	6.0			
Lead/Lag	Lag	Lag					U.U				
Lead-Lag Optimize?	Yes	Yes					4754.788A.7800				
Walk Time (s)	7.0	7.0			7.0		7.0	7.0			7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		64.886 BS - 45	11.0
Pedestrian Calls (#/hr)	0	11.0			0		0	0			0
Act Effet Green (s)	V	18.0			96.0		96.0	96.0			y
Actuated g/C Ratio		0.12			0.64	0601#3.351.95	0.64	0,64	S4 800 S5 889		
v/c Ratio		0.12			0.54		0.04	0.84			
WU INGIU		V.V1			U.U4		V.U I	0.04			

Lane Group	Ø 77
Lane Configurations Traffic Volume (vph)	
Future Volume (vph)	
ldeal Flow (vphpl) Storage Length (ft)	
Storage Lanes Taper Length (ft)	
Lane Util. Factor	
Frt Fit Protected	
Satd. Flow (prot) Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red Satd. Flow (RTOR)	
Link Speed (mph) Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph) Enter Blocked Intersection	
Lane Alignment Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft) Two way Left Turn Lane	
Headway Factor Turning Speed (mph)	
Turn Type	
Protected Phases Permitted Phases	
Minimum Split (s) Total Split (s)	24.0 24.0
Total Split (%)	16%
Maximum Green (s) Yellow Time (s)	18.0 4.0
All-Red Time (s)	2.0
Lost Time Adjust (s) Total Lost Time (s)	
Lead/Lag Lead-Lag Optimize?	Lead Yes
Walk Time (s)	7.0
Flash Dont Walk (s) Pedestrian Calls (#/hr)	11.0 0
Act Effct Green (s) Actuated g/C Ratio	
v/c Ratio	

Baseline

	V	/	4	M	†	<i>/</i>	\	 	لر	•	/*	
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL,	NER	Ø4
Control Delay		0.5		6.5.3	10.0		10.0	29,3	5 5 6 6			
Queue Delay		0.0			0.1		0.0	0.0				na ki dinadar Armerandang
Total Delay		0.5			10.2	5.4 S.5	10.0	29,3	3 5 8 3			100
LOS	TATLONG BUTON GOVERNORS	Α	and the same and a same and a same and a same and a same and a same and a same and a same and a same and a same		В		Α	С				
Approach Delay		0.5			10.2			29.2				
Approach LOS		Α			В			С				
Intersection Summary												
Area Type: Of	ther											
Cycle Length: 150						4945	84.33					1
Actuated Cycle Length: 150										Andrew Control of Control of Control		///w van/000/00/a
Offset: 0 (0%), Referenced to	phase 2:N	IBT, Start	of Greei	ı, Master	Intersecti	on 💮 💮		9 E (8 L)				
Natural Cycle: 110		Memorrane (Standard)		core ances successives.	Su describiga successi de consucrados de consu	t yeze ki i kaj maj men de nem desek	angun, musa mga paga	ne s consus con con avenus.	Entant Chart States and Court No.	energitary are actorized to		
Control Type: Pretimed												
Maximum v/c Ratio: 0.84	Stanistica (estatu			Situation (Specific		400 <u>11</u> - 121 (021 02		elik i Sukeringan kesik	AARIMEEN 11150 1117 (ST	res e possos spos especiales.	560 6508 .08090-1000	
Intersection Signal Delay: 21.4				211 / 12	tersection	particular and mental and defend of Apparea						
Intersection Capacity Utilization	n 63.1%			IC	U Level o	Service	В					
Analysis Period (min) 15												
Splits and Phases: 3: Sligo	Ave & MD	320 & W	essex R	t								
#3 #6				· · · · · · · · · · · · · · · · · · ·	***************************************			#6				
1								- ₽Ø4				
102s								48 s				
#3 #6								#6 ••• _{Ø7}		#3	#6 * Ø8	

Lane Group.	
Control Delay	
Queue Delay	
Total Delay LOS	ğ
Approach Delay Approach LOS	300000
Intersection Summary	

	•	y -	•	4	†	/	>	↓	لر	f	/*
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER Ø4
Lane Configurations		M			₽		ሻ	7→			
Traffic Volume (vph)	1	2	2	0	941	7	4	421	137	0	0
Future Volume (vph)	1	2	2	0	941	7	4	421	137	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	0	Marabaranan-	0	110		0	0	0
Storage Lanes		1	0	0		0	- ē ≋ 1		0	0	0
Taper Length (ft)		25	-CoCoCoCoCoCoCoCoCoCo	25	ocenica esta esta 44 Merchanica esta est		25			25	
Lane Util. Factor	1.00	1.00	1.00	1,00	1.00	1.00	1.00	1.00	1.00	1,00	1,00
Frt	**************************************	0.946	e Paradelina de la companya de la companya de la companya de la companya de la companya de la companya de la c	entitimentario denne naciona	0.999		er Continue de come taxaneme consti	0.963			and the second of the second of the second of the second of the second of
Flt Protected		0.971			45,000,000,000		0.950				
Satd. Flow (prot)	0	1711	0	0	1861	0	1770	1794	0	0	0
FIt Permitted		0.971					0.090				
Satd. Flow (perm)	0	1711	0	0	1861	0	168	1794	0	0	0
Right Turn on Red			Yes		S. S. S. S.	Yes			Yes	6.00	
Satd. Flow (RTOR)		65	ose siden kedar Teknik		1		enpada Asses e propero	22	especial meters of sectors	erest period for a second reserve	
Link Speed (mph)		30		se ese et es Sesso se sos	30			30		30	
Link Distance (ft)		749			186			555		157	
Travel Time (s)		17,0			4.2			12.6		3,6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	2	2	0	1023	8	4	458	149	0	0
Shared Lane Traffic (%)	100 miles (1800 miles 1800 miles (1800 miles 1800 miles (1800 mile	55 N DODGE I N S SHI'N I E SHI I I I N N S		totas incesta nasa	transmission from patte	vid novi i i descenda i escond	Alter Andreas and Assessment	(48,000 F 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10	hardward of entered and an interest deem	ana angara ya Angaya ya sa sa s	er mantena ang aran na maganta menantra tanta a ang ang
Lane Group Flow (vph)	○ ○ O'	- 5	0	0	1031	0	4	607	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)		12			12			12		0	
Link Offset(ft)		0			0			0		0	
Crosswalk Width(ft)		16			16			16		16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9
Turn Type	Prot	Prot			NA		Perm	NA		enners en monde	
Protected Phases	8	8			-2			6			4
Permitted Phases	man communicación de la Completa Sant			russinus od un Jerus vedali.	essentitional eta 15 sett		6	: Operation American State and American	cationation contractions	en entenn even mysterne.	
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0			24.0
Total Split (s)	24.0	24.0	empresentante de la compressión	ana da Amar mata kake akan	102.0		102.0	102.0			48.0
Total Split (%)	16.0%	16.0%			68.0%		68.0%	68.0%			32%
Maximum Green (s)	18.0	18.0			96.0		96.0	96.0			42.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0			4.0
All-Red Time (s)	2.0	2.0		9544969/0099888	2.0		2.0	2.0			2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			
Total Lost Time (s)		6.0			6.0		6.0	6.0			
Lead/Lag	Lag	Lag			20308						
Lead-Lag Optimize?	Yes	Yes		SKIZIATONASI	- A		A				4 6
Walk Time (s)	7.0	7.0			7.0		7.0	7.0			7.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0			11.0
Pedestrian Calls (#/hr)	0	100			06.0		0 0	0 0 0 0			0
Act Effet Green (s)		18.0			96.0		96.0	96.0 0.64			
Actuated g/C Ratio	2002	0.12			0.64 0.87		0.64 0.04	0.53			
v/c Ratio		0.02			0.07		0.04	0.00			

Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph) Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor Frt	
Flt Protected	
Satd. Flow (prot)	
FIt Permitted Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft) Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%) Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft) Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph) Turn Type	
Protected Phases	
Permitted Phases	
Minimum Split (s) Total Split (s)	24.0 24.0
Total Split (%)	16%
Maximum Green (s)	18.0
Yellow Time (s)	4.0
All-Red Time (s) Lost Time Adjust (s)	2.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize? Walk Time (s)	Yes 7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effet Green (s)	
Actuated g/C Ratio v/c Ratio	

Baseline

	*	J	•	M	†	<i>></i>	1	‡	لر	*	/*	
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	Ø4
Control Delay		0.2			27.8		11.2	16.0				
Queue Delay		0.0			0.0		0.0	0.1				
Total Delay		0.2			27.8	8 61 2 3	11.2	16.1		3.55.55		
LOS		Α		entre son a color constant	C	DAMESTO POR PORTO DO CO.	B	В	550H (2007) 61 F-61 F-64 G-64 A	Magashi essindi yan kecara	n Gert voorwerde Hermande	oscherovanski k
Approach Delay		0.2		Alton Suigo	27.8			16.1				
Approach LOS		Α			С			В				
Intersection Summary					10							
	ther	a sentana na minana anima										
Cycle Length: 150										10 0 15 16	566555	
Actuated Cycle Length: 150				eggiter eller som	g neithige Agreen		lasto det ete de la com	984186.4506 INCOM	Receptor of the Control of the Contr	0.000 to 0.000 (0.000)		HARRASER
Offset: 0 (0%), Referenced to Natural Cycle: 110	pnase Z:N	ıbı, Stari	or Greer	ı, Master	Intersection	מר איני איני			Sign At Ga			
Control Type: Pretimed									granaska:	(\$1750) (\$17 0 4)		
Maximum v/c Ratio: 0.87												
Intersection Signal Delay: 23.	4			Int	tersection	LOS: C		valgesäviöi.				
Intersection Capacity Utilization		er greek en reke in er in reke	Serbut see eeus sitte sittegerijk bi	The first territories for experience of the second	U Level o	Compared to the Compared of the Compared Compare	С	De englegt gelägt tilbereite	Lean Assertion as the miles	randera er rane i landr		100111111111111111111111111111111111111
Analysis Period (min) 15										5 (5) (5) (6)		
												-
	Ave & MD	320 & W	lessex R	<u> </u>							***************************************	
#3 #6 D Ø2 (R)								#6 ≱⁄204				
102 s			V 36 % 36		7			48 s				
#3 #6 \$\dagger\$ \dagger\$ \dagger\$ \dagger\$ \dagger\$ \dagger\$								#6 • Ø7		#3 47	#6 *7 Ø8	

Lane Group Ø7
Control Delay
Queue Delay
Total Delay
Approach Delay
Approach Delay Approach LOS
Intersection Summary

Baseline

	هر.		<u></u>	•	4	Ą.	4	†	<u> </u>	/	+	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	1>			↔		ሻ	1}-		ሻ	ተ	Common March March
Traffic Volume (vph)	65	11	14	19	21	12	24	515	11	6	725	0
Future Volume (vph)	65	11	14	19	21	12	24	515	11	6	725	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	65		0
Storage Lanes			Ö	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1,00	1.00	1,00	1.00	1.00	1.00	1.00	1.00
Frt	1,00	0.917	1.00		0.969	1144		0.997		oggi obtenden en		1991 S. S. S. S. S.
Fit Protected	0.950				0.982		0.950			0.950		
Satd. Flow (prot)	1770	1708	0	0	1773	0	1770	1857	0	1770	1863	0
Flt Permitted	0.950				0.982		0.230			0.360		
Satd. Flow (perm)	1770	1708	0	0	1773	0	428	1857	0	671	1863	0
Right Turn on Red			Yes		assa	Yes	,_0		Yes			Yes
Satd. Flow (RTOR)		15			8			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			524	*		2298			186	
Travel Time (s)		12.8	: 0 : 0 : 0 : 0 : 0 : 0 : 0 : 0 : 0 : 0		11.9			52.2			4,2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	12	15	21	23	13	26	560	12	7	788	0
Shared Lane Traffic (%)		::::::::::::::::::::::::::::::::::::::		0,559,555 W. 5 54 (964)			even proper			90.4000 000 000 000 000.		entre en en en en en en en en en en en en en
Lane Group Flow (vph)	71	27	0	0	57	0	26	572	0	7	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Rìght
Median Width(ft)		12	19.11	- 	12		**************************************	12	, ,,,,,,,		12	
Link Offset(ft)		0			0			0	eriosemas carer		0	
Crosswalk Width(ft)		16			16			16	59(198nd)-49-499()		16	6079100000000000000000000000000000000000
Two way Left Turn Lane							6156190 GENE					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA		Split	NA		Perm	NA	ENTOCODER DEN MENTER N	Perm	NA	energy, energy transport
Protected Phases	7	41		8!	8		18050	2			6	
Permitted Phases			tin yensii neensii saakud	- Co-480000 - CO-5000			2			6	commendates were expenses	II - Salselvi - St.
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	48.0		24.0	24.0		102.0	102.0	***************************************	102.0	102.0	engerosaco se co,
Total Split (%)	, 16.0%	32.0%		16.0%	16.0%	nekology köldin Sob sob Soboli	68.0%	68.0%		68.0%	68.0%	
Maximum Green (s)	18.0	42.0	ACCEPTATION ASSESSED	18.0	18.0	: Pamakinokerise rissa od	96.0	96.0		96.0	96.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	de deservición de la companya de la	4.0	4.0	
All-Red Time (s)	2.0	2.0	nanjereka (yangerakka	2.0	2.0	0.4550-4460 St. 1447-1417-1415	2.0	2.0	6 mg 3/2 gg r r r r 2 - r r 2 - r m r r r	2.0	2.0	**************
Lost Time Adjust (s)	0.0	0.0	18.55		0.0		0,0	0.0	6638	0,0	0.0	
Total Lost Time (s)	6.0	6.0		0.0000000000000000000000000000000000000	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag	\$ 2.2						
Lead-Lag Optimize?	Yes			Yes	Yes							
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7,0	7,0	
Flash Dont Walk (s)	11.0	11.0	and the second s	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0.	0		0	0	
Act Effct Green (s)	18.0	42.0	en en europe europea et d'esplication	and with the second second section is settled.	18.0		96.0	96.0	a order of the effect of #400	96.0	96.0	
Actuated g/C Ratio	0.12	0.28			0.12		0.64	0,64		0.64	0.64	
v/c Ratio	0.33	0.06	ana neggarana eta eta eta eta eta eta eta eta eta et	101 00001100001100001	0.26		0.10	0.48		0.02	0.66	

	٠		*	•	4-	*	4	1	~	/	\	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	65.4	23.3			54.8		11.5	15.7		2.0	3.4	
Queue Delay	0.8	0.0			120.2	and the same and another defining	0.0	0.0	en notes el Masero el como no	0.0	1.8	pri i more avadima i eracija
Total Delay	66.2	23.3			175.1		11.5	15.8		2.0	5.2	
LOS	E	С			F	arioni, rai communicido	В	В	anacesta eta varesta.	A	Α	utwisterstessers not
Approach Delay	88858	54.3			175.1			15.6			5.2	
Approach LOS		D			F			В			Α	
Intersection Summary												
Area Type:	Other											
Cycle Length: 150												
Actuated Cycle Length: 150							generali destruit (1904)	erenia i magnesia		::::::::::::::::::::::::::::::::::::::		VALUE - COLUMN 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Offset: 0 (0%), Referenced	to phase 2:	NBT, Star	rt of Gree	en, Mastei	intersect	ion						
Natural Cycle: 110	64 september (1976)	988988888888	\$51782V65450		2 4 000000000000000000000000000000000000	5546183616388	5/6020420453463	1005V680VE()(6	:00:5X150X151		0497655 (SSVISE	(1889) (SA) (SA)
Control Type: Pretimed										192 (CEV (\$1.269)		8.078.028.00M
Maximum v/c Ratio: 0.84						l ac n	40 040 CB 0450 S					
Intersection Signal Delay: 1	Catacola i a pomenti i constanti			y maga-yara na na na tanan na na na na na na na na na na na na	tersection	terperation of property of	. n					
Intersection Capacity Utiliza	ation 57.7%)(CU Level o	ot Service	9 B					
Analysis Period (min) 15												

! Phase conflict between lane groups.

Splits and Phases: 6: MD 320 & Park Valley Rd

#3 #6	#6
Ø2 (R)	→ Ø4
102 s	48 s
#3 #6 #6 Ø6	#6 #3 #6 ** ** ** ** ** ** ** **
102 s	24s 24s

	۶	-	\	•	•	*	4	†	<i>></i>	\	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL.	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	₽			∢ }>		ሻ	1₃		75	↑	
Traffic Volume (vph)	180	40	24	15	35	11	21	757	16	13	407	0
Future Volume (vph)	180	40	24	15	35	11	21	757	16	13	407	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	an was grown and a sound and the	0	0		0	100	ege er figlige fan frigering frifiger gû	0	65	A comprehensive Antonia	0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25		· · · · · · · · · · · · · · · · · · ·	25			25		Antonio (Pa
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1.00	1.00	1,00
Frt		0.943			0.975	***********		0.997		**************************************		
Flt Protected	0.950				0.988		0.950		10100000000 0	0.950	u ⊈us varyoyangesi	SNESS(SS)
Satd. Flow (prot)	1770	1757	0	0	1794	0	1770	1857	0	1770	1863	0
Fit Permitted	0.950	1101			0.988		0.445	1001		0.200	1000	
Satd. Flow (perm)	1770	1757	0	0	1794	0	829	1857	0	373	1863	0
Right Turn on Red		1101	Yes		1104	Yes	023	1007	Yes	010	1000	Yes
Satd. Flow (RTOR)		20	1 50		6	109		1	160			169
Link Speed (mph)		30			30			30		500 495 1440 40 414 786 786 786 786 786	30	
		563			524	Talk Carlotting		2298				
Link Distance (ft)						29/4696503			BAI051026-7851		186	91929X993
Travel Time (s)	^ ^^	12.8	^ ^^	0.00	11.9	0.00	0.00	52,2	0.00	A 00	4.2	0.00
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	43	26	16	38	12	23	823	17	14	442	0
Shared Lane Traffic (%)				FACE REALITY				444				
Lane Group Flow (vph)	196	69		.0	66	0	23	840	0	14	442	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	- Left	Left	Right	Left	Left	Right
	ACTION CONTRACTOR AND									and the second second	• -	
Median Width(ft)		12	80.500505144500		12	05500500000000000000000000000000000000		12			12	5040000000
Median Width(ft) Link Offset(ft)		12 0			0			0			0	
Median Width(ft) Link Offset(ft) Crosswalk Width(ft)		12						to the state of a second state of the second		A41140000000000000000000000000000000000		
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane		12 0 16			0 16			0 16			0 16	
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor	1.00	12 0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph)	15	12 0 16 1.00	1.00 9	15	0 16 1.00		15	0 16 1.00	1.00 9	= 15 ₌	0 16 1.00	
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type	15 Prot	12 0 16 1.00	Control of the Contro	15 Split	0 16 1.00 NA	1.00		0 16 1.00 NA			0 16 1.00 NA	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases	15	12 0 16 1.00	Control of the Contro	15	0 16 1.00	1.00	15	0 16 1.00		= 15 ₌	0 16 1.00	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases	15 Prot 7	12 0 16 1.00 NA 41	Control of the Contro	15 Split 8I	0 16 1.00 NA 8	1.00	15 Perm 2	0 16 1.00 NA 2		15 Perm 6	0 16 1.00 NA	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases	15 Prot	12 0 16 1.00	Control of the Contro	15 Split	0 16 1.00 NA	1.00	15 Perm	0 16 1.00 NA		15 Perm	0 16 1.00 NA	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases	15 Prot 7	12 0 16 1.00 NA 41	Control of the Contro	15 Split 8I	0 16 1.00 NA 8	1.00	15 Perm 2	0 16 1.00 NA 2		15 Perm 6	0 16 1.00 NA 6	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s)	15 Prot 7 24.0	12 0 16 1.00 NA 41	Control of the Contro	15 Split 8I 24.0	0 16 1.00 NA 8	1.00	15 Perm 2 24.0	0 16 1.00 NA 2 24.0		15 Perm 6 24.0	0 16 1.00 NA 6	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s)	15 Prot 7 24:0 24:0	12 0 16 1.00 NA 41 24.0 48.0	Control of the Contro	15 Split 8l 24.0 24.0	0 16 1.00 NA 8 24.0 24.0	1.00	15 Perm 2 24.0 102.0	0 16 1.00 NA 2 24.0 102.0		15 Perm 6 24.0 102.0	0 16 1.00 NA 6 24.0 102.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%)	15 Prot 7 24.0 24.0 16.0%	12 0 16 1.00 NA 41 24.0 48.0 32.0%	Control of the Contro	15 Split 81 24.0 24.0 16.0%	0 16 1.00 NA 8 24.0 24.0 16.0%	1.00	15 Perm 2 24,0 102.0 68.0%	0 16 1.00 NA 2 24.0 102.0 68.0%		15 Perm 6 24.0 102.0 68.0%	0 16 1.00 NA 6 24.0 102.0 68.0%	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s)	15 Prot 7 24.0 24.0 16.0% 18.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0	Control of the Contro	15 Split 8l 24.0 24.0 16.0% 18.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0		15 Perm 6 24.0 102.0 68.0% 96.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) Lost Time Adjust (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0	1.00	15 Perm 2 24,0 102.0 68.0% 96.0 4.0 2.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0	Control of the Contro	15 Split 8l 24.0 24.0 16.0% 18.0 4.0 2.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize?	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes	1.00	15 Perm 2 24,0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Walk Time (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes 7.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0 Lag Yes 7.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes 7.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Walk Time (s) Flash Dont Walk (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes 7.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0 Lag Yes 7.0 11.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes 7.0 11.0	1.00	15 Perm 2 24,0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Walk Time (s) Pedestrian Calls (#/hr)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes 7.0 11.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0 Lag Yes 7.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes 7.0 11.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr) Act Effct Green (s)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes 7.0 11.0 0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0 Lag Yes 7.0 11.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes 7.0 11.0 0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00
Median Width(ft) Link Offset(ft) Crosswalk Width(ft) Two way Left Turn Lane Headway Factor Turning Speed (mph) Turn Type Protected Phases Permitted Phases Minimum Split (s) Total Split (s) Total Split (%) Maximum Green (s) Yellow Time (s) All-Red Time (s) Lost Time Adjust (s) Total Lost Time (s) Lead/Lag Lead-Lag Optimize? Walk Time (s) Flash Dont Walk (s) Pedestrian Calls (#/hr)	15 Prot 7 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lead Yes 7.0 11.0	12 0 16 1.00 NA 41 24.0 48.0 32.0% 42.0 4.0 2.0 0.0 6.0	Control of the Contro	15 Split 81 24.0 24.0 16.0% 18.0 4.0 2.0 Lag Yes 7.0 11.0	0 16 1.00 NA 8 24.0 24.0 16.0% 18.0 4.0 2.0 0.0 6.0 Lag Yes 7.0 11.0	1.00	15 Perm 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 2 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0		15 Perm 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	0 16 1.00 NA 6 24.0 102.0 68.0% 96.0 4.0 2.0 0.0 6.0	1.00

	•		*	✓	4	*	4	†	1	1	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	109.3	29.7			58.7		10.3	21.9		2,2	2.6	
Queue Delay	69.0	0.0			152.7		0.0	0.2	and 12 12 12 14 15 15 15 15 15 15 15 15 15 15 15 15 15	0.0	0.4	
Total Delay	178.2	29.7		8 S 2 S	211.4		10.3	22.1		2.2	2.9	
LOS	F	С			F		В	С		Α	Α	
Approach Delay		139.6			211.4			21,8			2.9	
Approach LOS		F			F			С			Α	

Intersection Summary	
Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 15	50
Offset: 0 (0%), Referenced	d to phase 2:NBT, Start of Green, Master Intersection
Natural Cycle: 110	
Control Type: Pretimed	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay:	
Intersection Capacity Utiliz	zation 67.4% ICU Level of Service C
Analysis Period (min) 15	

[!] Phase conflict between lane groups.

Splits and Phases: 6: MD 320 & Park Valley Rd

#3_#6	#6
	> ∅4
#3 #6 	#6 #3 #6 Ø7 Ø8
102 s	24 s 24 s

		-	`*	✓	←	•	*	. 1	<i>></i>	\	1	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1>			4		7	↑ ↑		74	1	
Traffic Volume (vph)	22	35	15	90	14	132	5	341	18	146	736	3
Future Volume (vph)	22	35	15	90	14	132	5	341	18	146	736	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	era a a como a a como a como de como como de como como de como de como de como de como de como de como de como	0	0	erandel per georgia anné a l'apage	0	50	1414-1614 (1414-1414) (1414-1414) (1414-1414) (1414-1414) (1414-1414) (1414-1414)	135	60		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25		ordinistration	25	··· PST-45 (1007-45-45-45-45-45-45-45-45-45-45-45-45-45-		25	egreni etereenin nii 180 oo oo oo oo	turna a stactiva a randada sel tradi	25		111111111111111111111111111111111111111
Lane Util. Factor	1.00	1,00	1.00	1.00	1.00	1,00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.956		Marie Maria (Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie M Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Marie Ma	0.925			0.992			0.999	
Flt Protected	0.950				0.981		0.950			0.950		
Satd. Flow (prot)	1770	1781	0	0	1690	0	1770	3511	0	1770	1861	0
Flt Permitted	0,472				0.851		0.308			0.487		1
Satd. Flow (perm)	879	1 781	0	0	1466	0	574	3511	0	907	1861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			53			9				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		309			285			326			2298	40000000000
Travel Time (s)		7.0			6.5			7,4			52.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	38	16	98	0.92 15	143	0.9 <u>2</u> 5	371	20	159	800	3
	24	၁၀	ΙU	30	19	140	Υ.,	٧,١		100	OUU	Ų
Shared Lane Traffic (%)	24	54	0	0	256	0	5	391	0	159	803	0
Lane Group Flow (vph)	ti a tanada da arawada a sajagigi da atau ata					er e commente de la facilitation de la commentación de la companya del companya de la companya de la companya del companya de la companya de		No	No	No No	ous No	No No
Enter Blocked Intersection	No	No	No Diake	No Late	No	No Diabt	No 1 of	A CONTRACTOR OF STREET	and a residue of the second	Left		and the second of the second
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Leit	Left	Right
Median Width(ft)		12			12 0			12			12 0	
Link Offset(ft)		- 0			16			0 40			16	
Crosswalk Width(ft)		16			10	in en en en en en en en en en en en en en		16			10	:00:00:00:00:00:00:00:00:00:00:00:00:00
Two way Left Turn Lane	4.00	4 00	4.00	4.00	4.00	4.00	4 00	4.00	4.00	4.00	4 00	4.00
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	^	9	15	^	9	15	۸	9
Number of Detectors	1	2		1	2		1 	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0	eriteliseksekstrielisek	0	0	9304398893980003	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	Cl+Ex		Cl+Ex	CI+Ex	15.44158240195749834455	Cl+Ex	Cl+Ex		Cl+Ex	CI+Ex	400000000000000000000000000000000000000
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	protesta (1500 to 150 150 150 150 150 150 150 150 150 150	0.0	0.0		0.0	0.0	Regulações (1991	0.0	0.0	
Detector 1 Queue (s)	0.0	0,0		0,0	0.0		0.0	0,0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	gyanggangan taréh n	0.0	0.0		0.0	0.0	\$658655555
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6		ragas (kassa etaren era	6		egggistaggerakkomi.	6			6	B0#000#05805-044
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel	to province to the control of the con-	guaga gaasa whea waxee	naga garaga pananan kanan	Magning betrayon			appystages acestra for th	sanggang properties of the service o		HISOSOGRAPATIANA	programma de la company	989394984950
Detector 2 Extend (s)		0.0			0.0			0,0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	1440000404040404
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		

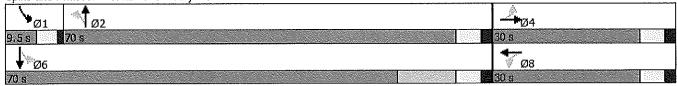
	→	-	*	•	4	•	*	†	/	\	↓	*
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SE
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5,0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		9.5	24.0	
Total Split (s)	30.0	30,0		30,0	30.0		70.0	70,0		9.5	70,0	
Total Split (%)	27.4%	27.4%		27.4%	27.4%		63.9%	63.9%		8.7%	63.9%	
Maximum Green (s)	24.0	24.0		24.0	24.0		64.0	64.0		5.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2,0		1.0	2,0	
_ost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		4.5	6.0	
_ead/Lag							Lag	Lag		Lead		
_ead-Lag Optimize?							Yes	Yes		Yes		
/ehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	19.1	19.1			19.1		64.2	64.2		75.2	73.7	
Actuated g/C Ratio	0.18	0.18			0.18		0.61	0.61		0.72	0.70	
//c Ratio	0.15	0.16			0.83		0.01	0.18		0.23	0.61	
Control Delay	37.5	27.8			54,3		9.6	9.5		6.1	11.5	
Queue Delay	0.0	0.0			0.0		0.0	0,5		0.0	0.0	
Total Delay	37.5	27.8			54.3		9.6	10.0		6.1	11.5	
_OS	D	С			D		Α	Α		Α	В	
Approach Delay		30.8			54.3			10.0			10.6	
Approach LOS		С			D			Α			В	
ntersection Summary												
Area Type:	Other											
Cycle Length: 109.5					National Control of the Control of t			د د د د د د د د د د د د د د د د د د د		414.44.44.44	an ang ngang ng mga na ana an an an an	
Actuated Cycle Length: 10	4.8											
Natural Cycle: 60								•				
Control Type: Actuated-Un	coordinated											

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 18.0 Intersection Capacity Utilization 78.6% Intersection LOS: B ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: MD 320 & Ray Dr/School DW



	<i>></i>	→	*	*	+	•	*	†	<i>p</i>	1	ļ	- 1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1+			₩		ሻ	↑ ↑		*1	ĵ.,	
Traffic Volume (vph)	11	4	12	24	4	90	7	739	5	14	407	2
Future Volume (vph)	11	4	12	24	4	90	7	739	5	14	407	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0	and the same of the same of the same	0	50		135	60		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25	oranie de Robert de properties		25			25		-23-003/2000049-200040-00-0	25		
Lane Util, Factor	1.00	1.00	1.00	1.00	1,00	1.00	1.00	0.95	0.95	1,00	1.00	1.00
Frt	openion that man	0.885			0.897			0.999			0.999	
Fit Protected	0.950				0.990		0.950			0.950		
Satd. Flow (prot)	1770	1649	0	0	1654	0	1770	3536	0	1770	1861	0
Fit Permitted	0.527	10-10			0.925		0.506			0.316	1001	
Satd. Flow (perm)	982	1649	0	0	1546	0	943	3536	0	589	1861	0
Right Turn on Red	302	1040	Yes		1040	Yes	J-10	0000	Yes	000	1001	Yes
Satd. Flow (RTOR)		13	100		98	100		1	1 03			1.00
Link Speed (mph)		30			30	Sandan et al compare		30			30	
Link Distance (ft)		309			285			326			2298	
		7.0			200 6,5			7,4			52.2	
Travel Time (s) Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
and the second of the control of the	0.92 12	0.92 4	0.92	0.92 26	0.92 4	0.92 98	0.92 8	803	0.92 5	0.92 15	442	0.92
Adj. Flow (vph)	14	4	ıs	20	4	90	0	ೲೲ	e e e	IJ	442	4
Shared Lane Traffic (%)					200			ممم		www.ue		
Lane Group Flow (vph)	12	17	0	0	128	. 0	. 8	808	0	15	444	0
Enter Blocked Intersection	No	No	No	No	No	No D: L4	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12	34555AX5855A	Selection control (inc	12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)	00000000000000000000000000000000000000	16	FERENCES OF THE STREET		16			16	U.500050050000000		16	505966566668
Two way Left Turn Lane											4.00	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		. 9	15		9	15		9	15		9
Number of Detectors	1	2	kan kanada kanada kanada kan	1	_ 2	ASSESSOR (FEB. 84) (FEB. 84)	1	2		1	_ 2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	nata de la constanta de la constanta de la constanta de la constanta de la constanta de la constanta de la cons	20	100 1		20	100	econocione en cara	20	100	ANHON CONSIDER
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	este este districte se de
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	Cl+Ex		Cl+Ex	CI+Ex		Cl+Ex	Cl+Ex	, OCC 1000-011110-07 AVA-0-0-	Cl+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	augusta armenia menteri er	0.0	0.0	e era appearant ette
Detector 1 Queue (s)	0,0	0,0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	oossaan ee ee ee	0.0	0.0		0.0	0.0		0.0	0.0	ngaruguranum name e
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6		Name and the second of the sec	6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		i 9 i	6	
Permitted Phases	4	and the second s		8			2		and a superior of the	6		
	4	4		8	8		2	2		6	6	

	≯	-	\rightarrow	•	*	*	*	†	1	-	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5,0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		9.5	24.0	
Total Split (s)	30.0	30.0		30,0	30.0		70,0	70,0		9,5	70.0	
Total Split (%)	27.4%	27.4%		27.4%	27.4%		63.9%	63.9%		8.7%	63.9%	
Maximum Green (s)	24.0	24.0		24.0	24.0		64.0	64.0		5.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.5	4.0	
All-Red Time (s)	2.0	2,0		2,0	2,0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6,0	6,0			6.0		6.0	6.0		4.5	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)	11,0	11.0		11.0	11.0		11,0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	8,1	8.1			8,1		68.8	68,8		72.1	70.6	
Actuated g/C Ratio	0.09	0.09			0.09		0.76	0.76		0.79	0.78	
v/c Ratio	0.14	0.11			0,57		0,01	0,30		0.03	0.31	
Control Delay	40.2	22.6			22,8		4.6	4.4		2.6	3.8	
Queue Delay	0.0	0.0			0,0		0.0	0.6		0.0	0.0	
Total Delay	40.2	22.6			22.8		4.6	5.0		2.6	3.8	
LOS	D	С			С		Α	Α		Α	Α	
Approach Delay		29.9			22.8			5.0			3.8	
Approach LOS		С			С			Α			Α	
Intersection Summary												

Area Type: Other

Cycle Length: 109.5 Actuated Cycle Length: 90.7

Natural Cycle: 60

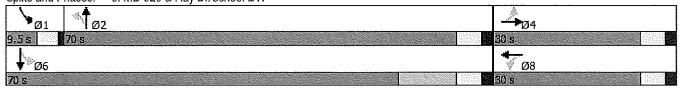
Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 6.7 Intersection Capacity Utilization 45.3% Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 9: MD 320 & Ray Dr/School DW

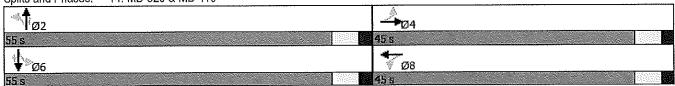


	≯		*	✓	*	1	4	†	<i>></i>	/	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1>		*	4		* 5	†	7	W.	^	75
Traffic Volume (vph)	67	425	43	48	213	29	41	611	87	18	271	0
Future Volume (vph)	67	425	43	48	213	29	41	611	87	18	271	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85	eesaaan marayaan	0	70	**************************************	0	140		175	160	***************************************	160
Storage Lanes	1		Ō	1		0	1		1	1		1
Taper Length (ft)	25	\$-5561-;:11011-1-0-55-1-2-00511-1-	::::::::::::::::::::::::::::::::::::::	25		indenie dengestigter	25	***************************************	prisi ministrapjajais	25	-0.000	: + : + + 1
Lane Util. Factor	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1.00	1.00	1,00	1.00	1,00
Frt		0.986	ederle et et et et et et et et et et et et et		0.982				0.850			
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1837	0	1770	1829	0	1770	1863	1583	1770	1863	1863
Fit Permitted	0.506			0.187			0.554			0.258		
Satd. Flow (perm)	943	1837	0	348	1829	0	1032	1863	1583	481	1863	1863
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		6	energia di ministra di Si			entiteriorite (Telefici				.,		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		606			656			1086			555	
Travel Time (s)		13.8			14.9			24.7			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	462	47	52	232	32	45	664	95	20	295	0
Shared Lane Traffic (%)						anega ana jar						ing de seus seus seus se u e
Lane Group Flow (vph)	73	509	0	52	264	0	45	664	95	20	295	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12		enter markitan	12			12	
Link Offset(ft)		0			. 0			. 0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	. ****	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	CI+Ex	Cl+Ex		Cl+Ex	Cl+Ex		CI+Ex	CI+Ex	Cl+Ex	Cl+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0,0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0,0	0.0		0.0	0.0	erenes de statistica (Th	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0,0			0,0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
		and the state of t	e programme de la filipida de la filipida de la filipida de la filipida de la filipida de la filipida de la fi		er and a constitution of the constitution of t		2	, agasta a a a santa Massacha a a sa Pista	2	6		

	*		→ ✓	4	N.	•	†	<i>></i>	>	ļ	1
Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	- 4	8	8		2	2	2	6	6	6
Switch Phase											ener in outstand to the series
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	nemona surganización su	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0		55.0	55.0	55.0	55,0	55,0	55.0
Total Split (%)	45.0%	45.0%	45.0%	45.0%		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39.0	39.0	39.0		49.0	49.0	49.0	49.0	49.0	49,0
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2,0	2,0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6,0	6.0	6.0
Lead/Lag		ana		unanau na muas na kataka na san		nesta en el contrato en	gang tanang ang Ales Sertel	novosa, rachoropopator vest			sansanalasinta (
Lead-Lag Optimize?											
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0		0	0	0	0	0	0
Act Effct Green (s)	29,9	29.9	29.9	29.9		49.3	49,3	49.3	49,3	49,3	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	an en anti-se de la section de la company	0.54	0.54	0.54	0.54	0.54	lean-a-ka-kapita
v/c Ratio	0,24	0.84	0.46	0.44		0.08	0.66	0.11	0.08	0.29	
Control Delay	23.6	41.2	37.9	26.0		12.9	20.6	12.6	13.7	13.8	ara destruir extension
Queue Delay	0.0	0.0	0.0	0.0		0,0	0.0	0.0	0,0	0.0	
Total Delay	23.6	41.2	37,9	26.0		12.9	20.6	12.6	13.7	13.8	
LOS	С	D	D	С		В	С	В	В	В	
Approach Delay		39.0		28.0		esteration applications	19.2	erena i altropere al fatta col		13.8	
Approach LOS		D		C			В			В	
Intersection Summary											
Area Type:	Other										
Cycle Length: 100		na ang katalan ang katalan ka		e a servicio de activación		eranta as establisheda	and the state of t			400 00 40 40 40 40 40 40 40 40 40 40 40	AND THE STATE OF STATE OF
Actuated Cycle Length: 91	1.3										
Natural Cycle: 60								Ta Sacrea et Decrea decrea (il decre			
Control Type: Semi Act-Ui	ncoord										
Maximum v/c Ratio: 0.84						surfaces sections assured					
Intersection Signal Delay:			\$100 x\$150 0 0 0 0 0 x x x x x x x x x x x x x x	ntersectio							
Intersection Capacity Utiliz	zation 78.2%) 		CU Level	of Service	D D		strangere egenterischen der	et enstandige et en trans		ra no septembro de
The state of the s											

Splits and Phases: 14: MD 320 & MD 410

Analysis Period (min) 15



	→		~	√	+	1	*	†	~	\	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	7>		*	1>		7	^	7	Ϋ́	↑	"آ
Traffic Volume (vph)	54	273	63	68	386	15	50	326	41	17	499	9
Future Volume (vph)	54	273	63	68	386	15	50	326	41	17	499	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85		0	70		0	140		175	160		160
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25	51 og 50 til en en en en en en en en en en en en en		25	***********		25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.994	,			0.850	*****************************		0.850
Fit Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1811	0	1770	1852	0	1770	1863	1583	1770	1863	1583
Fit Permitted	0.242			0.342			0.365			0.513		
Satd. Flow (perm)	451	1811	0	637	1852	0	680	1863	1583	956	1863	1583
Right Turn on Red			Yes	uses sessilistica		No			No			Yes
Satd. Flow (RTOR)		14							(1000 1100 110 Ex Ex Ex Ex Ex Ex Ex Ex	1000-11110-0-400-0-100-0		33
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		606			656			1086	(1)114111111111111111111111111111111111		555	Maria de la company
Travel Time (s)		13.8			14.9			24.7			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0,92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	297	68	74	420	16	54	354	45	18	542	10
Shared Lane Traffic (%)					i ya i da da da Maria Maria da da da da da da da da da da da da da			on and the second second			·/····	www.commer.
Lane Group Flow (vph)	59	365	0	74	436	0	54	354	45	18	542	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12		erin my is	12		e per el estat maj de co	12	alest Carrette
Link Offset(ft)					. 0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	**************************************	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	-0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	CI+Ex	Cl+Ex		Cl+Ex	Cl+Ex		CI+Ex	Cl+Ex	Cl+Ex	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0,0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	000000000000000000000000000000000000000	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	3.0	94			94			94			94	
Detector 2 Size(ft)		6			6		reus de la classica (CDP)	6		value value (nationally Pile)	6	
Detector 2 Type		Cl+Ex			CI+Ex			Cl+Ex			CI+Ex	
Detector 2 Channel					, a a a grant a can Till 1 (160)							
Detector 2 Extend (s)		0.0			0.0			0.0			0,0	
Turn Type	Perm	NA		Perm	NA	er a a servicio de la composição de la composição de la composição de la composição de la composição de la comp	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

	≯		~	•	-	1	•	†	*	>	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Detector Phase	4	4		8	8		2	2	2	6	6	(
Switch Phase									an an anath garage to part an tarrest			nervis nervis deserti
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0		45.0	45.0		55.0	55.0	55.0	55.0	55.0	55.0
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39,0		39.0	39.0		49.0	49.0	49.0	49.0	49.0	49.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.(
All-Red Time (s)	2.0	2,0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11,0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		Ö	0		0	0	0	0	0	(
Act Effct Green (s)	25.9	25,9		25.9	25.9		49.3	49,3	49.3	49.3	49,3	49.3
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.56	0.56	0.56	0.56	0.56	0.56
v/c Ratio	0.44	0.67		0.39	0.79		0.14	0.34	0,05	0.03	0.52	0.01
Control Delay	35.4	31.8		30.3	39.2		12.6	12.8	11.0	11.4	15.4	0.2
Queue Delay	0,0	0.0		0.0	0.0		0.0	0.0	0.0	0,0	0.4	0.0
Total Delay	35.4	31.8		30.3	39.2		12.6	12.8	11.0	11.4	15.8	0.2
LOS	D	С		С	D		В	В	В	В	В	1
Approach Delay		32.3			37.9			12.6			15.4	
Approach LOS		С			D			В			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 100					na missa manna nasar an ast			na salatan arabahan arbah	a seed that the value of the		seast erect that we that with a	
Actuated Cycle Length: 87	.3											
Natural Cycle: 50												**********
Control Type: Semi Act-Un	coord											
Maximum v/c Ratio: 0.79												
Intersection Signal Delay:	24.3				itersection							
Intersection Capacity Utiliz	ation 75.8%			IC	CU Level o	of Service	e D					
Analysis Period (min) 15												
Splits and Phases: 14: N	/ID 320 & M	D 410										
24 A	020 0 141	1.7				A						
Tø2						<u>~</u> •••	1					
55 s	770					45 s						

₹ø8

₩ 26

ntersection	4.0	1	1-1-2					1-15	400				
nt Delay, s/veh	4.6												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	max as Magnine
ane Configurations		4	-		4	Arton		4			4		
Traffic Vol, veh/h	63	42	8	17	45	38	7	33	2	100	7	3	
uture Vol, veh/h	63	42	8	17	45	38	7	33	2		7	3	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized	aldres t o		None	-		None		E 1 (9)	None	11.		None	
Storage Length	-	-			-	-	-		-	-	-	-	
/eh in Median Storag	e,# -	0	- 1		0			0	1		0		
Grade, %	-	0	-	-	0	-	-	0	-		0	4	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Nvmt Flow	68	46	9	18	49	41	8	36	2	5	8	3	
Major/Minor	Major1		1	Major2		J. Phy	Minor1	1 5150 10		Minor2		8.57.10	
Conflicting Flow All	90	0	0	54	0	0	299	314			200	70	Harry Waller B. C. C. C.
Stage 1	90	U	U	54		0	187	187	50	313	298	70	Seat Marine Conse
Stage 2						_	112	127		107 206	107	•	
Critical Hdwy	4.12		-	4.12			7.12	6.52	6.22	7.12	191	6 00	And the second
Critical Hdwy Stg 1	4.12		- 1	4.12		*			2000		6.52	6.22	
Critical Hdwy Stg 2		-	-				6.12	5.52		6.12	5.52		The state of the s
Follow-up Hdwy	2.218			2.218			6.12	5.52		6.12	5.52	0.040	
AND DESCRIPTION OF THE PARTY OF		ACTION A	-	A. Colonia de la colonia de la	-	-	3.518	4.018	3.318	3.518	4.018	3.318	4.00
Pot Cap-1 Maneuver	1505	-	- 5	1551	100	-	653	601	1018	640	614	993	ALTERNATION OF
Stage 1	S OF SERVICE		-		-	-	815	745	NAMES OF THE PARTY OF	898	807	- 0 - 1 - 15 15 05	
Stage 2	•	•	-	<u>.</u>		-	893	791	10 -	796	742		
Platoon blocked, %	1505	a Labor		AFEA	-	-	040	F00	1010	F04	F70	000	
Nov Cap-1 Maneuver				1551	+		616	566	1018	581	578	993	
Mov Cap-2 Maneuver				500,000	-		616	566	-	581	578	-	
Stage 1	-		-		-		777	710	•	856	797	-	
Stage 2				SEA W	124		871	782	900	719	707	5.2-10	
Approach	EB			WB			NB	State of the last		SB			
ICM Control Delay, s	4.2		Y SIN	1.2	TA T		11.7			10.8	7 - 1	11/2/22	
ICM LOS	VI SEN				7		В			В			- v - v - v - v - v - v - v - v - v - v
/linor Lane/Major Mvn	ot N	IBLn1	EBL	EDT	EDD	MDI	WOT	WDD (2DI -4			Contract Contract	
	n N			EBT	EBR	WBL	WBT	WBR S			VIII.		
Capacity (veh/h)	SE VILLEY	586	1505			1551	-		632	105		-	
ICM Cantral Dalay (a)	Annual Control of the	0.078		-		0.012	-	ALTERNATION IN	0.026		in the same		
ICM Control Delay (s)	1414	11.7	7.5	0	A 18 16	7.3	0		10.8	1.9			
ICM Lane LOS	1103 1	В	A	Α	5.5	A	Α	TOT STITUTE	В			VIII IA	
ICM 95th %tile Q(veh		0.3	0.1	a)	(,,	0		(-	0.1		CE,	Maria V	
(42 × 11.								•			270		
491.	4 +	16	てナ	47	2.5	+	12	4.1,	1270	0			

Intersection	All Control	45	S. L. S. C.	1 - 5 9	all a			JUNE 1	VI 3 740	13 (28)			F. 1	and the same
Int Delay, s/veh	3.3											- WAR 19		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		Total -
Lane Configurations		4			4			4	11211		4	021,		
Traffic Vol, veh/h	10	46	7	19	64	9	6	7	14	7	6	8		
Future Vol, veh/h	10	46	7	19	64	9	6	7	14	7	6	8		150
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	1.0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized	9718 350		None		11/2/29	None	Milds.	2.00	None	-	-	ENTERONOUS LANGE		
Storage Length	-	-	-	-	-	-	-	_	-	Calabay.		-		
Veh in Median Storage	.# -	0	9 11 1340	100	0		W.	0	76518	TEN A	0		4	
Grade, %	-	0	_	_	0	-	1 de 1 de 1	0			0	-	- Tan 2 (1) (2)	ALVEL A
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92		
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	100	1,500
Mymt Flow	11	50	8	21	70	10	7	8	15	8	7	9		
WINTE TOW	11	00	0	21	10	10	1	0	15	0	1	9		1115
Major/Minor I	Major1		7-27	Major2	NA PART	el d'il sig	Minor1	107/10/10	atter all air	Minor2	15			40
Conflicting Flow All	79	0	0	58	0	0	199	197			105	74	1	3.3
Stage 1	19	2011	U	estamperior.	U	Will Street			54	203	195	74		
THE RESERVE OF THE PARTY OF THE			Arca .	-			76	76	-	116	116		A STATE OF	512
Stage 2	4.12			140	-		123	121	- 000	87	79	- 0.00		
Critical Hdwy	4.12			4.12	- "	- 5	100	6.52	6.22	7.12	6.52	6.22		
Critical Hdwy Stg 1		·			-	-	6.12	5.52	-	6.12	5.52	· ·		
Critical Hdwy Stg 2	0.040	11 11 1	E	- 0.40	7	1,1 3	6.12	5.52		6.12	5.52			
Follow-up Hdwy	2.218	·		2.218			3.518	4.018	3.318	3.518	4.018	3.318		
ot Cap-1 Maneuver	1519	- profile		1546		-	760	699	1013	755	700	988	1 - 15	Jim S
Stage 1	produces a	i in instruction	·	-	-		933	832		889	800			
Stage 2		1	-	16.		-	881	796		921	829			
Platoon blocked, %	and a boulance	-	-		-	-								
Nov Cap-1 Maneuver	1519			1546	15 m. =	7.112	736	684	1013	726	685	988		
Nov Cap-2 Maneuver	-	-	-		-	-	736	684	-	726	685	-		
Stage 1	-		-			1	926	826	11 -	883	789	10		
Stage 2			-			(8)	854	785		893	823	-		
	JOE .		1		= " (1)		White.	1.0			Part of the second	1.1	the state of	1
Approach	EB			WB	(0,0)	-0.7.	NB	437	F 1/5	SB	19/4-1		5 Williams	334
HCM Control Delay, s	1.2	China's		1.5		THE PARTY	9.5		1	9.7	110		The state of the s	= 709
HCM LOS	(2)38/1						Α			Α				1
	2000	10 00	MARKET	at train	17	1500		71 1/2			" Divis			17 37.40
Minor Lane/Major Mvm	it l	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					239
Capacity (veh/h)			1519			1546			793	100	100	A AND		
CM Lane V/C Ratio		0.035		-	ERIL .	0.013		Carlo Carlo	0.029			The figure of	110000	1-14-1
HCM Control Delay (s)		9.5	7.4	The second of		7.4	0		9.7			1775 L	1011	Sa Mr
CM Lane LOS	11 3 31	Α.	Α.	A		Α.4	A		Α.	West Control	9:0:=	115		
HCM 95th %tile Q(veh)	Town Allen	0.1	0			0	A	500 120		+ 12 12 17	9 17 1 1	4		
(27)	9 1			971	1/11				70	1/2	03			4000
(2)	- 1.5	11	CIX	1.1)	+ (10	2V -	17	()	1 - 1	116				
Z	56.	5 +						0.61		3				
				679	1.8/	203	3 =	3.	3					
				-										

Intersection and the second se
Intersection Delay, s/veh 7.3
Intersection LOS A

Movement -	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44			4	
Traffic Vol, veh/h	3	5	21	1	10	0	61	0	1	0	0	8
Future Vol, veh/h	3	5	21	1	10	0	61	0	1	0	0	8
Peak Hour Factor	0,92	0.92	0.92	0,92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5 5	23	<u> </u>	11	0	66	0	1	0	0	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB	- 91		WB			NB				SB	
Opposing Approach	WB			EB			SB		100		NB	
Opposing Lanes	110			- 4			3D 4				A S	
Conflicting Approach Left	SB			NB			EB				WB	
Conflicting Lanes Left	- 1-			140			 1				- A	
Conflicting Approach Right	NB			SB			WB				EB	
Conflicting Lanes Right	ND 1			35 4			77D				LD	
HCM Control Delay	6.8			7.2			7.6				6.5	
TRANCALIBLE DEIAV											13 (1	
HCM LOS	0.0 A	arago haladalah		Α.			Ä			VIII. 184 - 184 - 184	Ä	

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	98%	10%	9%	0%
Vol Thru, %	0%	17%	91%	0%
Vol Right, %	2%	72%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	29	11	8
LT Vol	61	3	. 1	0
Through Vol	0	5	10	0
RT Vol	1	21	0	8
Lane Flow Rate	67	32	12	9
Geometry Grp	- 0 070		0.044	1 0.000
Degree of Util (X) Departure Headway (Hd)	0.079 4.204	0.032 3.662	0.014 4.109	0.008 3.461
Convergence, Y/N	4.204 Yes	3.002 Yes	Yes	Yes
Cap	855	973	868	1032
Service Time	2.218	1.702	2.15	1.49
HCM Lane V/C Ratio	0.078	0.033	0.014	0.009
HCM Control Delay	7.6	6.8	7,2	6.5
HCM Lane LOS	A	A	A	Α
HCM 95th-tile Q	0.3	0.1	0	0

Synchro 9 Report Page 1 Baseline

Intersection	
Intersection Delay, s/veh 7.3	
Intersection LOS A	

			DOWNSON AND AND AND AND AND AND AND AND AND AN									
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44-			4		,	43-	
Traffic Vol, veh/h	15	21	44	3	8	0	46	2	1	1	5	6
Future Vol, veh/h	15	21	44	3	8	0	46	2	1	1	5	6
Peak Hour Factor	0.92	0,92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0,92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	······	2
Mvmt Flow	16	23	48	3	9	0	- 50	2	1	1	5	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB		20	WB			NB			SB		
Opposing Approach	WB			EB			SB	**	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	NB		
Opposing Lanes	1			1			1	4.85.4		1		
Conflicting Approach Left	SB		\$14 100 151 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NB	- mand services for discourse Automate	Andrea ed color in adulati medica	EB	1.124 (1.124) (1.124)	entitioned as commission of a factor	WB		90000000000000000000000000000000000000
Conflicting Lanes Left	1			1			1 8			1		
Conflicting Approach Right	NB			SB			WB	o 10.21 (10.02) (1.02) (1.03)	and the second second second second second second second second second second second second second second seco	EB	- Arramaday daylar Arestas	enes Cuelling of the
Conflicting Lanes Right	a a 1	845.55		1			1			1		
HCM Control Delay	7.2			7.3		and the second second second	7.6		es e estambles dos ARASTO	7		
HCM LOS	Α			Α			Α			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	94%	19%	27%	8%
Vol Thru, %	4%	26%	73%	42%
Vol Right, %	2%	55%	0%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	80	11	12
LT Vol	46	15	3	1
Through Vol	2	21	8	5
RT Vol	1	44	0	6
Lane Flow Rate	53	87	12	13
Geometry Grp	1	1	1	8 3 1 s
Degree of Util (X)	0.063	0.091	0.014	0.014
Departure Headway (Hd)	4,292	3.766	4.17	3.863
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	948	854	921
Service Time	2.327	1.804	2.218	1.91
HCM Lane V/C Ratio	0.064	0.092	0.014	0.014
HCM Control Delay	7.6	7.2	7.3	7
HCM Lane LOS	A	Α	A	Α
HCM 95th-tile Q	0.2	0.3	0	0

_ 1					*	7	7	V/C
Wessex Rd		14:00 PM		Critical Lane Vol. Tot. 1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600	Critical Lane Volume	256	3	957 VICE
320 @		2005	- 7	B II I B II II	Opposing Lefts	20	, (TOTAL 9
Location: MD		y y y y y y y 137	941	Service Level B A A B B B B B B B B B B B B B B B B B	Lane Volume (1)x(2)	846	2,5	l volume LEVEL
		Evening Pe		Lane Use Factor 1.00 .53 .37	Lane Use Factor(2)	1.0	1.0	* critical
	les	1		No. of Lanes 4 4 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Volume(1)	94/17	1+2+2	
2/13/18	Existing Traffic Volumes MN Date:	Indicate North by Arrow Wessex Rd	.025 GM 8	Possenger Car Equivalent 1.1 2.0 3.0 4.0 5.0	Movement \	SB SB	WB	arks:
1/2		URATIO	Adjustments		Ø			Remarks:
Date:	ons/ Year: ted B	JNF1.G	Adjus	ugh and Volume 9	*	7)	0//0
Count Date:	Conditions/ Design Year: Computed By	LANE CONFIGURATION MD MES:	Ave	sing Through and ght—Turn Volume 0 to 199 200 to 599 600 to 799 800 to 999 1000+	Critical Lane Volume	206	,77	9/9 VICE
JMMARY	Ш		Sligo	Opposing Thro Right-Turn 0 to 199 200 to 591 600 to 791 800 to 991 1000+	osii fts	w c	,	TOTAL 9/
TURNING MOVEMENT SUMMARY	AND OF SERVICE	\$30 W		X + 2 2 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Lane Volume (1)x(2)	292	17	critical volume
NING MO	AND LEVEL OF				Lane Use Factor(2)	0. 0.	1.0	* critice
TUF		□ 3 □ 72 ∀ →	591		Volume(1)	324+118	7+6+4	
		Morning Peak		Phasing Ø	Ø Movement	NB SB	WB	Remarks:

			*)		7 .	7	\/C
Sligo Ave	4:00 Pm	Critical Lane Vol. Tot. 1000 to 150 1500 to 150 1500 to 1500 1300 to 1450 1450 to 1600 Greater than 1600	Critical Lane Volume	286	826	081	19	7027
320 @		0	Opposing Lefts	/3	12	1	i	TOTAL /0
Location: MD	Y	Service Level DO CD BA	Lane Volume (1)x(2)	773	coh	180	/9	* critical volume LEVEL
	Evening Pe	Lane Use Factor 1.00 .53 .37	Lane Use Factor(2)	1.0	1.0	1.0	1.0	* critice
Volumes - Date:	 	No. of Lanes 1 2 2 4 4 1 1 1 1 1	Volume(1)	257+16	407	08/	1/4-38-4-1/	
. 2/13// ting Traffic	Indicate North by Arrow ATION Park Valley Rd SS SS SS SS SS SS SS SS SS SS SS SS SS	Passenger Car Equivalent 1.1 2.0 3.0 4.0 5.0	Movement	a N	SB	EB	m M	arks:
	LANE CONFIGURATION No No No No No No No No No No No No No N		Ø					Remarks:
Count Date: Conditions/ Design Year: Computed B	CONFIC	gh an olume	* _ v		7,	7	7	\/v
Count Date: Conditions/ Design Year: Computed By	< w	Opposing Through and Right—Turn Volume 0 to 199 200 to 599 600 to 799 800 to 999	Critical Lane Volume	285	646	3	25	TAL 865 SERVICE
UMMARY	Sligo	Opposit Right 0 26 66 66	Opposing Lefts	8	42	4		요 명
NG MOVEMENT SUM AND LEVEL OF SERVICE	8:30 NW	X + 0 0 4 0	Lane Volume (1)x(2)	975	725	150	2	* critical volume LEVEL
TURNING MOVEMENT SUMMARY AND LEVEL OF SERVICE	7:30/8:31		Lane Use Factor(2)	1.0	1.0	0.1	0.0	* critic
	· //	7/3 8	Volume(1)	515411	1		7/+12+6/	
5	Morning Peak Hours And Andrew Market	Phasing @ Sp/17	Movement	aN BN		EB (%)	9M	 Remarks:
	1 1 1	4	Ø					Rer

		1	T	Г	Π.	T		Ta
			 *		7 7) >
Ray Dr	₩ d 80:5h	Critical Lane Vol. Tot. 1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600	Critical Lane Volume	80/2	416	26		%%%
320 @	2005		Opposing Lefts	6/	V 3] =		TOTAL %
Location: MD	739 739 7 7 7 7 7	Service Servic	Lane Volume (1)x(2)	394	60%	30		* critical volume LEVEL
	Evening Pe	Lane Use Factor 1.00 .53 .37	Lane Use Factor(2)	0.53	0.	5 6.		* critic
les ::		No. of Lanes 1 = 2 = 3 = = 4 = = 4	Volume(1)	5+612	5/07+2	26.77 10		
WL/ 2//4//8 Existing Traffic Volumes MN Date:	School DW School	Passenger Car Equivalent 1.1 2.0 3.0 4.0	ment	a N	By C			Remarks:
1 7	Sch Sch		Ø					1
nate:	N S S S S S S S S S S S S S S S S S S S	ume ume	*) ;	s		> >
Count Date: _ Conditions/ Design Year: Computed By	LANE CONFIGURATION Scho Ray Dr Left Tirm Adiistments	l mic	Critical Lane Volume	388	666	135	тем на техности на применения выправления	908 VICE
UMMARY	& -	Opposir Right 0 20 20 80	Opposing Lefts	94/	الم و	22 72		TOTAL 90
VEMENT SUM AND OF SERVICE	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	X - 0 w 4 w	- _ _ _ _ _ _ _ _ _	243	739	//3		critical volume
TURNING MOVEMENT SUMMARY AND LEVEL OF SERVICE	7:30 /8:30		Lane Use Factor(2)	£2.6	1.0	1.0		* critic
	' <u> </u>		Volume(1)	341+18	736+3	41 + 66		
	Morning Peak Hour 18 23 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Phasing (8)	Ø Movement	N S		WB		Remarks:

Evening Peak Hour *3:00/y:00 PM* 1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600 Critical Lane Volume Critical Lane Vol. Tot. 4001 410 240 404 OF SERVICE g Opposing Lefts TOTAL 0 320 88 Service Level 41 326 50 LEVEL Location: MD **ABOOMF** * critical volume Lane Volume (1)x(2) 928 17 499 665 336 1015 1 ~ * Lane Use Volume(1) Factor(2) Lane Use Factor 1.0 0. 0. 0.1 9. .53 29 273 53 63 Ħ (E #) No. of Lanes 573 +63 386415 326 0 m 4 466 Existing Traffic Volumes Indicate North by Arrow Date: Passenger Car Equivalent Movement 图图 EB 8 2.0 3.0 5.0 5.0 MD 410 Ξ: 320 MD Remarks: LANE CONFIGURATION Left Turn Adjustments Computed By: MN Ø Opposing Through and Right—Turn Volume Conditions/ Design Year:) / / Count Date: X 7 Critical Lane Volume 200 to 599 600 to 799 800 to 999 629 309 37 TOTAL // XX 216 0 to 199 320MD LEVEL OF SERVICE MD 410 1000+ Opposing Lefts TURNING MOVEMENT SUMMARY 00 8/3 7 LEVEL OF SERVICE * critical volume Lane Volume (1)x(2) Xe S - 0 m 4 m 242 112 894 Morning Peak Hour 7:30/8:30 AM AND Lane Use Volume(1) Factor(2) 8% 2/3 0. 1.0 0. 1.0 <u>87</u> 611 41 ch+52h 62+812 102 /8 27/ 0 1 * 7 Movement 425 9 \mathbb{R} 33 SB Ш Ç $\boldsymbol{\varnothing}$ Remarks: Phasing Ø

2/

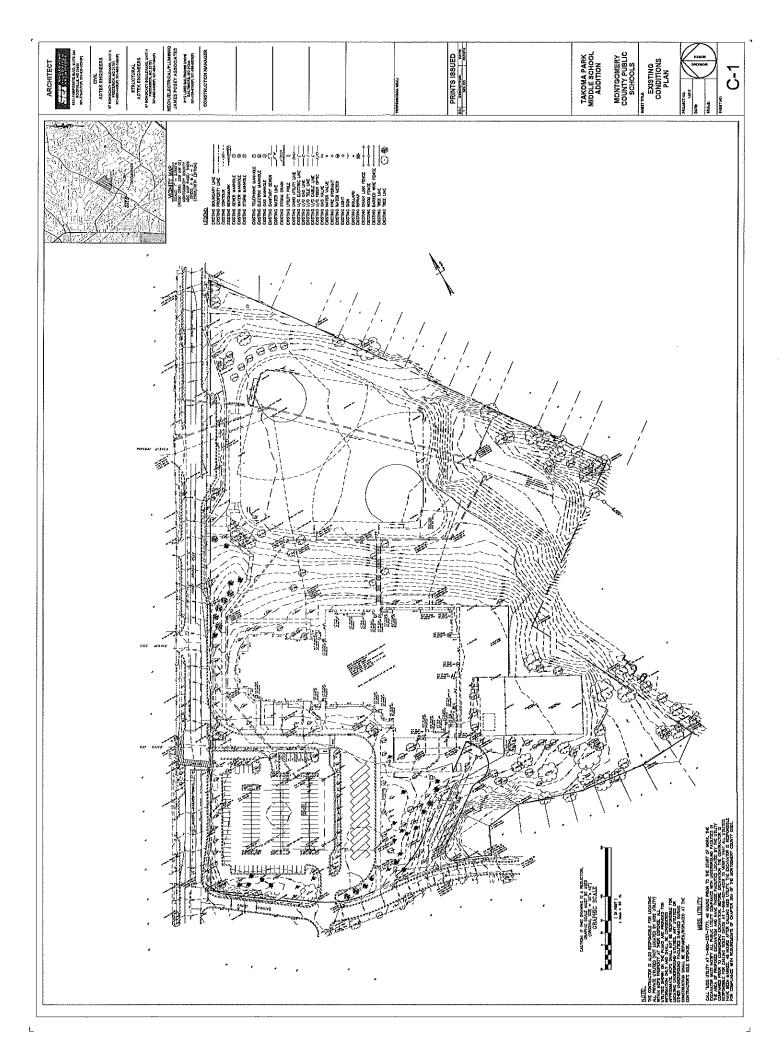
X

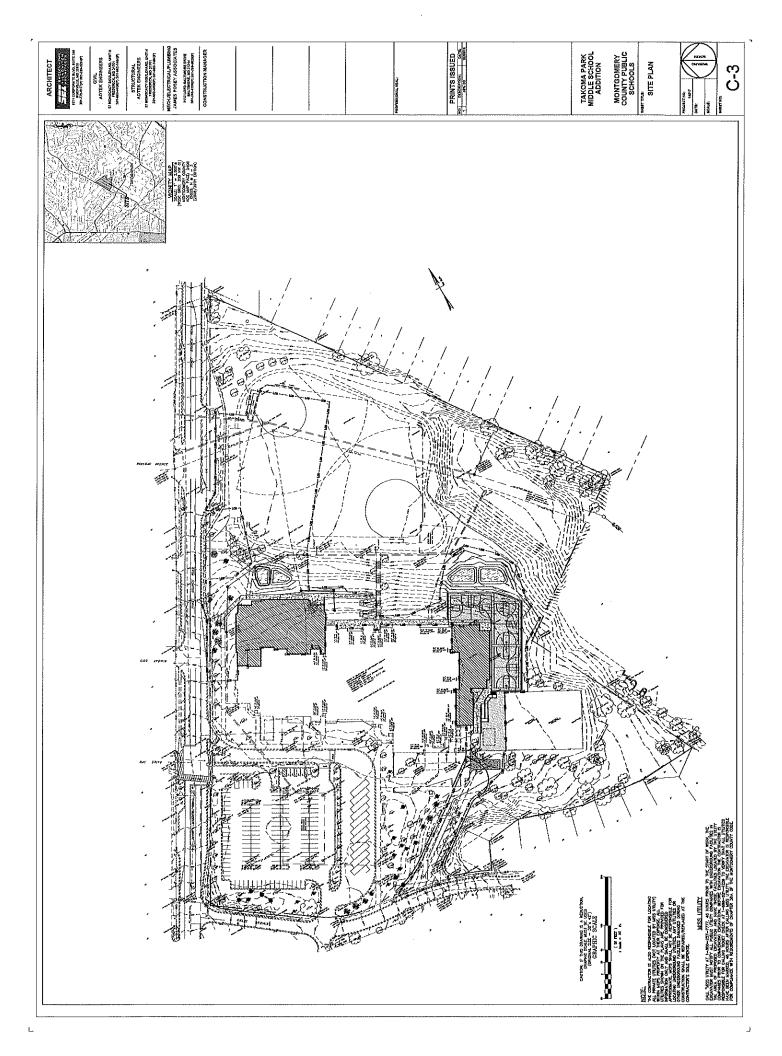
Ave			*	7		7	\/\C
Chestnut	₩ d @0:45	Critical Lane Vol. Tot. 1000 or Less 1000 to 1150 1150 to 1350 1300 to 1450 1450 to 1600 Greater than 1600	Critical Lane Volume	34	23	401	138 VICE
ant Ave @	3:00	0	Opposing Lefts	7	9	01	TOTAL /3
Location: Grant	Hour Appear	Service Pervice Pervice Number Number	Lane Volume (1)x(2)	L2	17	46	al volume LEVEL
	Evening Pe	Lane Use Factor 1.00 .53 .37	Lane Use Factor(2)	1.0	1.0	1.0	* critical
se	 	No. of Lanes 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Volume(1)	6+7+14	7+6+8	27.64.49	
2//4//8 Traffic Volumes	Indicate North by Arrow t Ave	er Car lient	ment	NB	SB	WB	
Existing Tr	 	Passenger Co Equivalent 1.1 2.0 3.0 4.0 5.0	Move				Remarks:
, ,	FIGUR #	and	*	7		7	V/C F
Count Date: _ Conditions/ Design Year: Computed By	LANE CONFIGURATION School School Ave Ave Thro Adiistments	Opposing Through and Right – Turn Volume 0 to 199 200 to 599 600 to 799 800 to 999 1000+	Critical Lane	Ch	72/2/2	165	7.
UMMARY	Grant	Opposin Right- 0 20 20 80 80	Opposing Lefts	7	7	63	TOTAL 2/
TURNING MOVEMENT SUMMARY AND LEVEL OF SERVICE	8:30 AM	X - 0 w 4 w	C) Volu	47	15	70/	critical volume
RNING MO			Lane Use Factor(2)	1.0	1.0		* critic
	' ← <u> </u>		Volume(1)	753372	5+7+3	19,45+38	
	Morning Peak Hour	Phasing @	Ø Movement	N N	SB	WB	 Remarks:

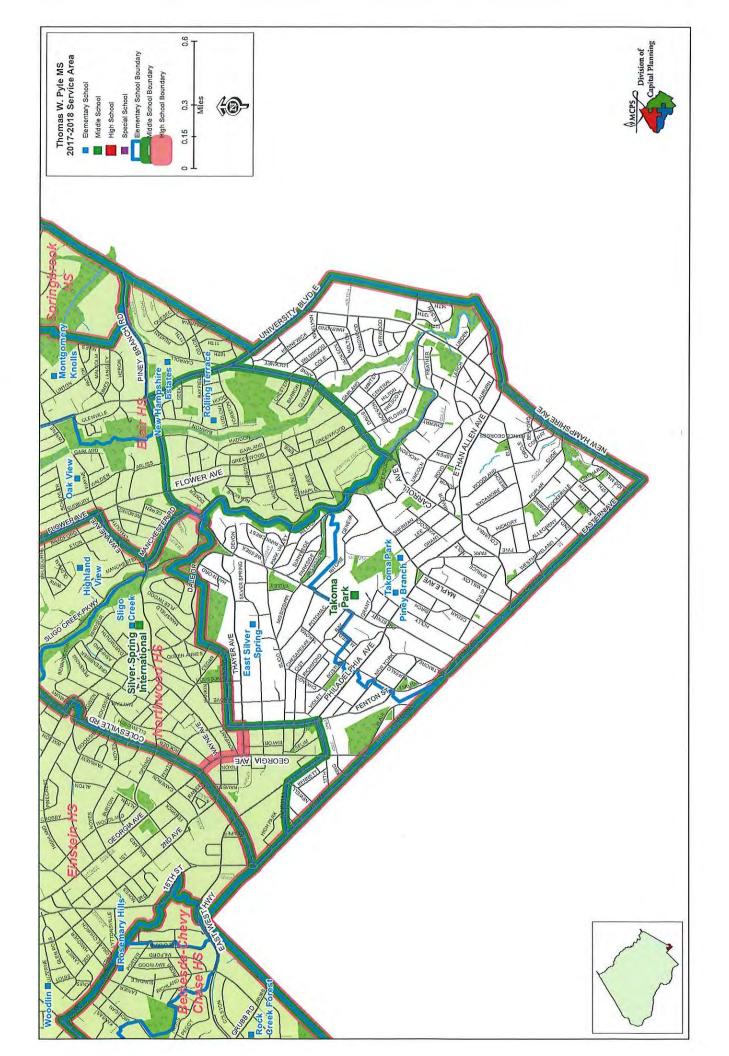
o		*	←	7 ,	7		<u> </u>	
Holly Ave	14:00 PM	1	Volume 50	28	22	١	161	/ICE
int Ave ©			Lefts /	97	2) /2		TOTAL	L OF SERVICE
Location: Grant	100 H 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Service Level Level D D D D D D D D D D D D D D D D D D D	(1)x(2)	2 3	200		critical volume	LEVEL
	Evening Peak	Lane Use	-actor(2)	1.0	5.0.		* critico	
SS SS SS SS SS SS SS SS SS SS SS SS SS	 	1 11 15 11 11 1	Volume(1) F 46+2+7	1+5+6	8 + E)		
1 2/21/18 ing Traffic Volumes Date: _	Indicate North by Arrow Grant Ave	ssenger Car Equivalent 1.1 2.0 3.0 4.0 5.0	Movement V	SB	WB		ks:	
Existing MN	ONFIGURATION Gra	G.	ba		***************************************		Remarks:	
Date: 6 ons/ Year: -	NN FIGURE	X and X	-	7 .	7		0 >>	
Count Date: _ Conditions/ Design Year: Computed By	A A A A A A A A A A A A A A A A A A A	1 Through Through Through 199 to 199 to 299 to 299 to 299 to 299 to 299 to 299 to 299 to 299 to 299 to 299 to 299 to 201	Volume 62	63	30	. To the terror and t	66	VICE
JMMARY SE	Grant	Opposin Right 0 20 20 60 60 80 10 Opposing	Lefts	19	- 2		TOTAL	L OF SERVICE
VEMENT SUM AND OF SERVICE	# †	X X X X Z T Z Z Z Z Z Z Z Z Z Z Z Z Z Z	(1)x(2)	∞ ;	17		critical volume	LEVEL
TURNING MOVEMENT SUMMAR AND LEVEL OF SERVICE	7:30 /8:30	d Cane	factor(2)	0. 0.	5. 0.		* critica	
TUR	' -	270	Volume(1)	4-	1410			
	Morning Peak Hour	hasing @ ALL WA	ent		WB		Remarks:	

APPENDIX D

EXISTING AND PROPOSED SITE PLANS AND SCHOOL BOUNDARY







APPENDIX E CAPACITY CALCULATIONS - BACKGROUND CONDITIONS

	<u>خر</u>				-4	1	*	†	<i>></i>	\ <u></u>	1	7
	EBL	EBT	▼ EBR	▼ WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	epp.
Lane Group	\$200000 \$10000 \$20 \$2000 \$100 \$200 \$200		EBN			Wer	-55775		*//	***************************************		SBR
Lane Configurations	ሻ	∱		*	<u>ጉ</u>		ሻ	↑	*	ሻ		7 7
Traffic Volume (vph)	67	433	43	48	218	29	41	611	87	18	271	0
Future Volume (vph)	67	433	43	48	218	29	41	611	87	18	271	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85 4		0	70		0	140		175	160		160
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25	4 0 0	4 AA	25	4 00	4.00	25	4.00		25	4 00	4 00
Lane Util, Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00
Frt	0.050	0.986		0.050	0.982		0.050		0.850	0.050		Sant Self Nessen (AS
FIt Protected	0.950	4007	•	0.950	4000	^	0.950	4000	4500	0.950	4000	4000
Satd. Flow (prot)	1770	1837	0	1770	1829	0	1770	1863	1583	1770	1863	1863
Flt Permitted	0,500	4007		0.180	4000		0.553	4000	1500	0.256	1000	1000
Satd. Flow (perm)	931	1837	0	335	1829	0	1030	1863	1583	477	1863	1863
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		6			~~							6:40666:200666
Link Speed (mph)		30			30			30			30	
Link Distance (ft)	AGGUNGARANAN AM	606			656	AV.052,505944555645		1086	40004:Fe40466668860		555	00/04/04/6/05/05/054
Travel Time (s)		13.8			14.9		~ ^ ^	24.7			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	471	47	52	237	32	45	664	95	20	295	0
Shared Lane Traffic (%)		obiobli us u rses	1889 1080 1080 1080 1080 1080 1080 1080	**************************************			808588 VISIT (1198)		0999999			0.0000000000 0
Lane Group Flow (vph)	73	518	0	52	269	. 0	45	664	95	20	295	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	NESS (1951) 450 (1951)	12			12			12	100e/074106105e	99354-8948585	12	
Link Offset(ft)		0			0			0			.0	
Crosswalk Width(ft)	Hadala Alba Bada kumpa ka	16	Sandi Kareland Girandi di		16		Lesesta (Constantes)	16			16	U. 1990 1990 1990 1990 1
Two way Left Turn Lane				4.00		4.00	4 00	4.00				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	_	9	15	^	9	15		9
Number of Detectors	1	2		1	2		. 1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	CI+Ex		CI+Ex	CI+Ex		Cl+Ex	CI+Ex	CI+Ex	CI+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel	~ ^ ^	A A		0.0			~ ^	^ ^	^ ^	^ ^	^^	
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0,0	0.0		0.0	0,0	0.0	0,0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6 Out			6	Arra (1880-1886)		6	24/08/2008/2008/
Detector 2 Type		Cl+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel		0.0			0.0			<i>^</i> ^ ^			ስ ለ	
Detector 2 Extend (s)	Darm	t en et el de la competition d		Darm	0.0 NA		Darm	0.0	Dorm	Derm	0.0	Derm
Turn Type	Perm	NA A		Perm	NA o		Perm	NA 2	Perm	Perm	NA e	Perm
Protected Phases	A	4		0	<i>i</i> 8		n	2	0	C	6	c
Permitted Phases	4			8			2		2	6		6

	*	→	\	€		1	4	†	<i>></i>	>	↓	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5,0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0		45.0	45.0		55.0	55.0	55.0	55.0	55.0	55.0
Total Split (%)	45.0%	45.0%		45.0%	45.0%		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39.0		39.0	39.0		49.0	49.0	49.0	49,0	49,0	49.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2,0	2,0		2.0	2,0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6,0	6.0	6.0	6.0	6.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11,0		11.0	11.0		11.0	11.0	11,0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)	30.3	30,3		30.3	30.3		49.3	49.3	49.3	49.3	49,3	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.54	0.54	0.54	0.54	0.54	
v/c Ratio	0.24	0.85		0.47	0.44		0.08	0.66	0.11	0.08	0.29	
Control Delay	23.6	41.7		39.1	26.0		13.0	20.9	12.7	13.8	14.0	
Queue Delay	0.0	0,0		0.0	0.0		0.0	0.0	0.0	0,0	0.0	
Total Delay	23.6	41.7		39.1	26.0		13.0	20.9	12.7	13.8	14.0	
LOS	С	D		D	Ċ		В	С	В	В	В	
Approach Delay		39.4		,	28.2		,,	19.5			14.0	
Approach LOS		D			С			В			В	
Intersection Summary												
Area Times	Olhar											**************************************

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 91.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

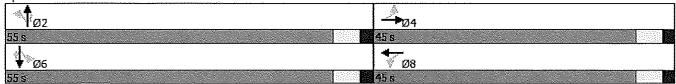
Intersection Signal Delay: 25.8

Intersection Capacity Utilization 78.6%

Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service D

Splits and Phases: 14: MD 320 & MD 410



	<i>></i>		*	•	+	•	*	†	<i>></i>	/	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		14	1→		*5	^	7	*	*	7
Traffic Volume (vph)	54	279	63	68	391	15	50	326	41	17	499	9
Future Volume (vph)	54	279	63	68	391	15	50	326	41	17	499	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85		0	70		0	140		175	160		160
Storage Lanes	1		Ō	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00
Frt	1,00	0.973		1.00	0.995	,,,,,		,,,,,,	0.850	1,00		0.850
Flt Protected	0.950	0.010		0.950	0,000		0.950			0.950		0.000
Satd. Flow (prot)	1770	1812	0	1770	1853	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.238	1012		0,336	1000		0.364		1000	0.512		1000
Satd. Flow (perm)	443	1812	0	626	1853	0	678	1863	1583	954	1863	1583
Right Turn on Red	440	1012	Yes	020	1000	No	010	1000	No	004	1000	Yes
Satd. Flow (RTOR)		13	1 69			INU			INU			33
Link Speed (mph)		30			30			30			30	00
		606			656			1086			555	
Link Distance (ft)		13,8			14.9			24.7			12.6	
Travel Time (s)	0.92	0,92	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92
Peak Hour Factor					0.92	0.92 16	A second of the second of the			and any first or will be the first		
Adj. Flow (vph)	59	303	68	74	425	סו	54	354	45	18	542	10
Shared Lane Traffic (%)	FA.	074						A.F.		20	F40	26
Lane Group Flow (vph)	5 9	371	.0	74	441	0	54	354	45	18	542	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	::::::::::::::::::::::::::::::::::::::	12			12	10159841050841050		12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)	10-00-01-00 <u>1-0</u> 0-01-00-00	16		saggaragera sepagai	16	ariotan Makabbaran		16	garari verani seletikan	200400000000000000000000000000000000000	16	3040000000000
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	40,004,044,040	1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	san assaring Sang Can Anti-	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	CI+Ex	decemberation to the experience of the experienc	Cl+Ex	CI+Ex		CI+Ex	Cl+Ex	Cl+Ex	Cl+Ex	CI+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	and an order
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0,0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	\$ 000 pt 10 10 10 10 10 10 10 10 10 10 10 10 10	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
	-						·					<u> </u>

	٠	-	~ *	- 4-	•	*	†	<i>/</i> *	/	ļ	4
Lane Group	EBL	EBT	EBR WB	L WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8 8		2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.	0 5.0		5.0	5.0	5.0	5.0	5.0	5,0
Minimum Split (s)	24.0	24.0	24.	0 24.0		24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.	0 45.0		55.0	55.0	55,0	55,0	55.0	55.0
Total Split (%)	45.0%	45.0%	45.09	6 45.0%		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39,0	39.	0 39.0		49.0	49.0	49.0	49.0	49.0	49.0
Yellow Time (s)	4.0	4.0	4.	0 4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2,0	2.	0 2.0		2.0	2,0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.	0 6.0		6.0	6.0	6.0	6,0	6.0	6.0
Lead/Lag					25/4003-01409-0705-0	600000000000					5000-F300-F60-65
Lead-Lag Optimize?			_								
Vehicle Extension (s)	3.0	3.0	3.	and the second of the second of the second		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	Non -			Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.		1000 1000 W 1000 W 1000 W	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11,0	11.0	11,			11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0 0		0	0	0	0	0	0
Act Effct Green (s)	26.2	26.2	26,			49.3	49,3	49.3	49.3	49.3	49,3
Actuated g/C Ratio	0.30	0.30	0.3			0.56	0.56	0.56	0.56	0.56	0.56
v/c Ratio	0.45	0.67	0.4			0.14	0.34	0.05	0.03	0.52	0.01
Control Delay	35.7	32.1	30.			12.7	12.9	11.1	11.5	15.5	0.2
Queue Delay	0.0	0.0	.0. ~^			0.0	0.0	0.0	0.0	0.4	0.0
Total Delay	35.7	32.1	30.			12.7	12.9	11.1	11.5	16.0	0.2
LOS	D	C	ı	C D		В	В	В	В	В	A
Approach Delay		32.6 C		38.0 D			12.7 B			15.6 B	
Approach LOS		U		ט			D			D	
Intersection Summary											
and the second second second second second second second second second second second second second second second	Other										
Cycle Length: 100	<u>a</u> llagastatkisteskastatatat	03-01-01-01-01-01-01-01-01-01-01-01-01-01-		92145944 OCH (0856 1958 1958 1958 1958 1958 1958 1958 1958				\$1946\$49466949684869			SCHOOLSING WAS
Actuated Cycle Length: 87.6)										
Natural Cycle: 50									01/200000000000000000000000000000000000	ennocenteres services	50000000000000
Control Type: Semi Act-Unc	coord										
Maximum v/c Ratio: 0.80		VII 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4									ncesaunese
Intersection Signal Delay: 2				Intersectio	and for the factor of the property of the form						
Intersection Capacity Utiliza	ition 76.1%			ICU Level	of Service) D					
Analysis Period (min) 15											
Splits and Phases: 14: M	D 320 & MI	O 410									
↑ø2		**			蟲						
					— 104						1

₹ Ø8

↓ Ø6

			TURNING MOVEMENT SUMMARY AND AND	VEMENT SUM AND	SUMMARY	Count Date:	Date: Nons/ B	B B CK	ground Traffic	Volumes	o 	Location: MD	320 @	MD 410	
Morning Peak Hour				5	7		n` 2		Indicate North		Evening Pe	Peak Hour			
18 271 0	18 271					LANE CONFIGURATION	ONFIG	JRATI(NO NO			17 499 9			
						MD 320			MD 410				2 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1
- L			1 1 1	_ †		*	<u>,</u>	1414			279	+ * 5 † &		<u>†</u>	
87 611 41	87 611 91				M —	1410	¥ iii	Adiist	MD 320			326 50	4/		
				> di	Opposin	1 Tm C	and L	ď	Passenger Car Fauivalent	No. of	Lane Use	Service		Critical Lane Vol. Tot.	
				£ 2	20	200 to 599			2.0	Lanes 1 =	Factor 1.00	∢a ∪	# 11 #	1000 or Less 1000 to 1150 1150 to 1300	
				ა 4 ro	98 0	600 to 799 800 to 999 1000+			ည်း 4. ကို ဝဝဝ	2	.53 .27 .29	<u>О</u> ШL.	- - -	o 1450 o 1600 · than 1600	
Movement Volume(1) Factor(2)	Lane Use Factor(2)			Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
611 1.0	1.0		_	119	81	679	7		NB	37.6	1.0	328	17	373	
SB 1.0		1.0	1	1/2	l h	3/2			SB	499	1.0	66h	50	645	7
¥33+43 1.0	1.0		~	9Lh	<i>8</i> h	625	7		EB	59+612	1.0	345	89	014	
1.0	1.0			CHZ	29	314			WB	391+15	1.0	808	7.5	096	7
			1												
7	-	:						(
- critica	- critica	critica	0	* critical volume	TOTAL	1153	<u>></u>	Kemarks:	arks:		* critico	critical volume	TOTAL	60	2//
				LEVEL	EL OF SERVICE	VICE						LEVEL	1. OF SERVICE	//CE	

APPENDIX F CAPACITY CALCULATIONS - TOTAL CONDITIONS

	•	*	4	M	†	*	1	↓	لر)	<i>/</i> *
Lane Group	WBL2	WBL	-WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER Ø4
Lane Configurations		M			4		ሻ	†			
Traffic Volume (vph)	7	6	4	0	600	1	3	736	178	0	0 '
Future Volume (vph)	7	6	4	0	600	1	3	736	178	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0	0		0	110		0	0	0
Storage Lanes		1	Ö	Ö		Ó	1		0	Ŏ	Ö
Taper Length (ft)		25		25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1,00	1.00	1.00	1,00	1.00	1.00
Ped Bike Factor		0.99			1.00			#1945 14<u>1</u>M-7 5961			
Frt		0.972						0.971			
FIt Protected		0.962					0.950	9.01		386445 A0156	
Satd, Flow (prot)	0	1730	0	0	1863	0	1770	1809	0	0	0
Fit Permitted	U	0.962	V	v	1000	· ·	0.309	1000		· ·	V
Satd. Flow (perm)	0	1730	0	0	1863	0	576	1809	0	0	0
Right Turn on Red	See U	1700	Yes	U	1000	Yes	010	1000	Yes	V	U ,
Satd. Flow (RTOR)		65	169		The section of the se	109		16	100		(5) (5) (2) (5) (5) (5)
Link Speed (mph)	4 5×4×4×6	30			30			30		30	
		749			186			555		30 157	
Link Distance (ft)		CONTRACTOR MATERIAL STREET			4.2			Physical religion from the Morten and a co		3.6	
Travel Time (s)		17.0	n		4.4	8		12.6		ა.ნ	
Confl. Peds. (#/hr)	0.00	0.00	- 3	0.00	0.00		8	^ ^^	0.00	0.00	0.00
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj, Flow (vph)	- 8	7	4	0	652	a 1 a	3	800	193	0	0
Shared Lane Traffic (%)				ropertyset og processes	**************************************			~~~			
Lane Group Flow (vph)	. 0	19	0	0	653	0	3	993	.0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)		12			12			12		0	
Link Offset(ft)		0			0			0		0	
Crosswalk Width(ft)		16			16			16	66000000000000000000000000000000000000	16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9
Turn Type	Prot	Prot			NA		Perm	NA			
Protected Phases	8	8			2	60.65166.45		6	8 54. 3. A.A		4
Permitted Phases				XI Gir Kalabi			6	04.0			24.5
Minimum Split (s)	24.0	24.0			24.0		24.0	24.0			24.0
Total Split (s)	24.0	24.0			102.0		102.0	102.0			48.0
Total Split (%)	16.0%	16.0%			68.0%		68.0%	68.0%			32%
Maximum Green (s)	18.0	18.0		50424534386	96.0	100.50050110450155	96.0	96.0		514 Sp. 1482 (14.75.09.29)	42.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0			4.0
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0	\$74\$W\$##\$##		2.0
Lost Time Adjust (s)		0.0			0.0		0.0	0,0		975.758p.25	
Total Lost Time (s)		6.0			6.0		6.0	6.0			
Lead/Lag	Lag	Lag									
Lead-Lag Optimize?	Yes	Yes	9475445545545			verlesseeme		24 SURVER <u>EN</u> TO <u>H</u> ERLE			
Walk Time (s)	7.0	7.0			7.0		7.0	7.0			7.0
Flash Dont Walk (s)	11.0	11.0	anastri en en en en en en en en en en en en en	ogilgiest (SigNasorma	11.0	ingagati 854 at 1960 at 19	11.0	11.0			11.0
Pedestrian Calls (#/hr)	a a a 0 a	0			0		8	8			0
Act Effct Green (s)		18.0			96.0		96.0	96.0			

Synchro 9 Report Page 1 Baseline

Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph) Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util, Factor	
Ped Bike Factor	
Frt Flt Protected	
Satd. Flow (prot)	
Fit Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s) Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type Protected Phases	7
Permitted Phases	
Minimum Split (s)	24.0
Total Split (s)	24.0
Total Split (%)	
Maximum Green (s)	18.0
Yellow Time (s)	
All-Red Time (s)	2.0
Lost Time Adjust (s) Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	
Act Effct Green (s)	

Baseline

3. Silgo Ave & MD	JEU W V	VC00C/	· i · · ·							1014		
	•	*	•	M	†	/	-	ļ	لير	*	/*	
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER-	Ø
Actuated g/C Ratio		0.12			0.64	6.15.15.11.19	0,64	0.64		2.30000		
v/c Ratio		0.07			0.55		0.01	0.85				
Control Delay		0.5			10.0		10.0	30.1				a. Guest
Queue Delay		0.0	entralia de la compania de la compania de la compania de la compania de la compania de la compania de la compa		0.1		0.0	0.0	tanak retettakate er alt tiette aftar.		alicente faction reported the action	and a few actions.
Total Delay		0,5			10.1		10.0	30.1				
LOS		Α			В		Α	С		Assuration Assuration Assuration		oeseerts serves
Approach Delay		0.5			10.1			30.0				
Approach LOS		Α			В			С				
Intersection Summary		r e										
	Other											
Cycle Length: 150								31 S. (5)				
Actuated Cycle Length: 150												
Offset: 0 (0%), Referenced to	o phase 2:1	VBT, Star	t of Gree	n, Master	Intersection	on		egra e	800 000 804 909			
Natural Cycle: 110												
Control Type: Pretimed												
Maximum v/c Ratio: 0.85		epports floor-floorise work		and a construction of the second		0.640.000.0000.0000		:::::::::::::::::::::::::::::::::::::	ien voe kangasteren	WELVE GLYCOSOF ABA	e Parakatang awa Partaba	10000000
Intersection Signal Delay: 21				and the second second second	tersection	00,000,000,000,000,000						
Intersection Capacity Utilizat	tion 74.6%		seguntaine bactussis ja	IC	U Level o	f Service) D		terrestativas viscou		074004903000950046400	000000000000
Analysis Period (min) 15		100 140 20 2		96.2		ē 4 g g					3 5 6 6	
Splits and Phases: 3: Slige	o Ave & MI	O 320 & V	Vessex R	d								
#3 #6								#6				
1 1 1 02 (R)								-				
1025			100					48 s		v)		

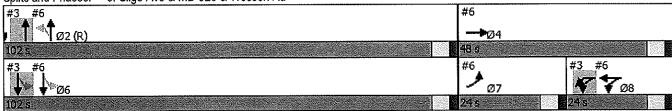
Lane Group Ø7
Actuated g/C Ratio
v/c Ratio
Control Delay
Queue Delay
Total Delay LOS
Approach Delay
Approach LOS
Intersection Summary

	1	*	*	4	†	<i>></i>	\	Ţ	لر	f	/*
Lane Group	WBL2	WBL	WBR -	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER Ø4
Lane Configurations		ħ*			1̂→		ሻ	^			
Traffic Volume (vph)	1	2	2	0	946	7	4	423	137	0	0
Future Volume (vph)	1	2	2	0	946	7	4	423	137	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	E 13 1 MANUAL DISPOSA DI POME A PAREL	0	0	0		0	110	. (************************************	0	0	0
Storage Lanes		- 1	0	0		0	1 1 1		0	0	0
Taper Length (ft)		25		25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1,00	1,00	1,00	1,00	1.00	1.00	1,00
Ped Bike Factor		0.98			1.00						
Fit		0.946			0.999			0.963			
Flt Protected		0.971					0.950				
Satd. Flow (prot)	0	1675	0	0	1860	- 0	1770	1794	0	0	0
FIt Permitted		0.971					0.087				
Satd. Flow (perm)	0	1675	0	0	1860	· 0	162	1794	0	0 - 0	0
Right Turn on Red			Yes			Yes		ann a mar far mus abad 1961 (Chil	Yes	Name and the Control of the Control	
Satd. Flow (RTOR)		65			. 1			22			84 SE SELECTION CO.
Link Speed (mph)		30			30			30		30	
Link Distance (ft)		749			186			555		157	
Travel Time (s)		17.0			4.2			12.6	an a new an em sua dian na mande le la la	3.6	
Confl. Peds. (#/hr)			8			6	6				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	2	2	0	1028	- 8	4	460	149	0	0
Shared Lane Traffic (%)		onemical control or all days		o er til til er til er til er til er til er til er til er til er til er til er til er til er til er til er til	san decomera na coloria	parameter and a property of the second of th		ittiseen ott massocole			
Lane Group Flow (vph)	0	5	0	0	1036	0	4	609	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right
Median Width(ft)		12			12			12		0	
Link Offset(ft)		0			0			0		0	
Crosswalk Width(ft)		16			16			16		_16	
Two way Left Turn Lane			4 ^^	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9
Turn Type	Prot	Prot			NA o	(452-1.03) (3-51-9a)	Perm	NA			
Protected Phases	8	8			, Z			6			4
Permitted Phases	616	~		ena5e0000055015			6	64.0			0.4.0
Minimum Split (s)	24.0	24.0	51150 Sept 707		24.0	(5) (5) (5)	24,0	24.0			24.0
Total Split (s)	24.0	24.0			102.0		102.0	102.0			48.0
Total Split (%)	16.0%	16.0%			68.0%		68.0%	68.0%			32%
Maximum Green (s)	18.0	18.0			96.0		96.0	96.0			42.0
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0 2.0			4,0 2.0
All-Red Time (s)	2.0	2.0			2.0		2.0	2.0 0.0		San Barrier Barrier	2.0
Lost Time Adjust (s)		0.0			0.0 6.0		0.0 6.0	6.0			
Total Lost Time (s)	1 42	6.0			U.U		0.0	0.0			
Lead/Lag	Lag	Lag									
Lead-Lag Optimize?	Yes 7.0	Yes			7.0		7,0	7.0			7,0
Walk Time (s)	CONTRACTOR CONTRACTOR	7.0 11.0			7.0 11.0		11.0 11.0	7.0 11.0			7.0 11.0
Flash Dont Walk (s)	11.0 0	11.0			11.0		6	- 6			0
Pedestrian Calls (#/hr)	υ	18.0			96.0		96.0	96.0			Ų
Act Effct Green (s)		10.0			90.0		9U.U	9U.U			

Lane Group	Ø7
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph) Ideal Flow (vphpl)	
Storage Length (ft) Storage Lanes	
Taper Length (ft)	
Lane Util. Factor Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot) Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft) Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Adj. Flow (vph) Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft) Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type Protected Phases	7
Permitted Phases	
Minimum Split (s)	24.0
Total Split (s) Total Split (%)	24.0 16% - San Carlos Constant
Maximum Green (s)	18.0
Yellow Time (s)	
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s) Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	7.0
Flash Dont Walk (s) Pedestrian Calls (#/hr)	
Act Effet Green (s)	∀

Baseline

	*	*	4	*	†	/	1	↓	لير	*	<i>></i>
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER Ø
Actuated g/C Ratio		0.12	2000		0.64		0.64	0.64			
v/c Ratio	· · · · · · · · · · · · · · · · · · ·	0.02	· / · / · / ·	on account and account of the	0.87	e i na seria de la composita de la composita de la composita de la composita de la composita de la composita d	0.04	0.53	one substitutes and the fig	155600000000000000000000000000000000000	
Control Delay	grant a	0.2			24.9		11.2	16.1			
Queue Delay	-	0.0	980 (150) (1500 (150) (1500 (1500 (1500 (150) (1500 (150) (1500 (1500 (150) (1500 (1500 (1500 (150) (1500 (1500 (1500 (1	ANDERSON STREET	0.7	(*************************************	0.0	0.0	STOCKER STOCKER		
Total Delay		0.2			25.6		11.2	16.1			
LOS		Α			C		В	B - 46 0			
Approach Delay		0.2		000 14000	25.6			16.0			
Approach LOS		Α			С			В			
Intersection Summary											
	Other		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				an isan nasan ing sagatan	euraneanassa (1941)		Portography	
Cycle Length: 150											
Actuated Cycle Length: 150											
Offset: 0 (0%), Referenced to	phase ۷:۱	NB1, Star	tor Gree	n, Master	Intersecu	on					
Natural Cycle: 110											
Control Type: Pretimed Maximum v/c Ratio: 0.92		Contra C.	S90657022.00590								
Intersection Signal Delay: 22	in.	44.485.00010144.7 \$5.2868216.66401		ln	tersection	เปกระก					
Intersection Capacity Utilizati	A	A SECTION ASSESSMENT	319915y 55		CU Level c		, U		S. 1821 (S. 1854)		
Analysis Period (min) 15	UH 1 U.A. N		STREET, LOC		/U LUVUI U	// OUI VIOC		vansede (gr. politic)	458495 UTILO355		
Allalysis I Glos (IIIII) IV						Karasana					
Splits and Phases: 3: Sligo	o Ave & Mi	D 320 & V	Nessex F	₹d							
#3_#6							****	#6			
↑ ↑ ↑ ↑											



Lane Group Ø7
Actuated g/C Ratio
v/c Ratio
Control Delay. Queue Delay
Total Delay
LOS
Approach Delay Approach LOS
Intersection Summary

		-	7	*	4	•	*	†	<i>></i>	-	+	-√
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	^}			44		ሻ	1→		7	^	
Traffic Volume (vph)	65	11	14	19	21	12	24	524	11	6	737	0
Future Volume (vph)	65	11	14	19	21	12	24	524	11	6	737	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	65		0
Storage Lanes	1		0	0		0	. 1		0	1		0
Taper Length (ft)	25		~ · ·	25			25			25		
Lane Util. Factor	1.00	1,00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.98			0.99			1.00				
Frt		0.917			0.969			0,997				MT(05501)
Flt Protected	0.950	0.011		510 161 157	0.982		0.950	0.001		0.950		
Satd. Flow (prot)	1770	1678	0	0	1761	0	1770	1855	0	1770	1863	0
Flt Permitted	0.950	IVIU			0.982	*	0,222	1000	Y Y	0.353	1000	
Satd. Flow (perm)	1756	1678	0	0	1753	0	414	1855	0	658	1863	0
Right Turn on Red	1100	1070	Yes	V	11.00	Yes		1000	Yes	UUU	1000	Yes
		15	168		. 8	162			165			169
Sald, Flow (RTOR)		30			30			30			30	
Link Speed (mph)			STEERICH NEEKS									\$ 5 205520558
Link Distance (ft)		563			524	68898	tana da	2298		Carlo Sc. 1576	186	
Travel Time (s)		12.8			11.9			52,2	-	7	4.2	
Confl. Peds. (#/hr)	2		3	3	^ ^^	2	1		7	The state of the s		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	12	15	21	23	13	26	570	12	7	801	0
Shared Lane Traffic (%)	9880) (55748 <u>5841</u> 84 7 87878	u (14.00.000.000.000.000.000.000.000.000.00	5x107157556 <u>1</u> -0015		::::::::::::::::::::::::::::::::::::::		u de mari <u>u</u> n u m ar			ikelosakkiosakk <u>ios</u> aksi	Salas Clarkton Edis Ava	589/695/65 <u>¥</u>
Lane Group Flow (vph)	71	27	- 0	0	57	0	26	582	0	7	801	3 3 0
Enter Blocked Intersection	No	No	No No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	CONTRACTOR OF CO	12			12		nineniferanin, lakefuren	12	Pelis SGaanles Straffen of vio	roducio Productica di Creati	12	STANSON PARKAGONI DA
Link Offset(ft)		0			. 0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		. 9	15		- 9	15		9
Turn Type	Prot	NA		Split	NA	na fina a company and a company	Perm	NA	annan wasan kasan	Perm	NA	an anconocciona
Protected Phases	7	4!		81	8		10 40 B	2			6	
Permitted Phases							2			6		
Minimum Split (s)	24,0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	48.0		24.0	24.0		102.0	102.0		102.0	102.0	
Total Split (%)	16.0%	32.0%		16.0%	16.0%		68.0%	68.0%		68.0%	68.0%	
Maximum Green (s)	18.0	42.0		18.0	18.0		96.0	96.0		96.0	96.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	5.5.5
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	i i va v comili v comitivam i pricinali prilitica	and a commence of the part of the part of the part of the part of the part of the part of the part of the part	6.0		6.0	6.0	out and the control of the Control o	6.0	6.0	January Company (1927) and Company (1927) and Company (1927) and Company (1927) and Company (1927) and Company
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes	e provincia i especialistica de Salabi	us a georgia estra fili de la Mari	Yes	Yes	oway magazanja akti (1975)		es careera es estretamento de	paracetre a se se sice sa si	, essente (o control de 1920)	vonstationer ATCDA südda	20000000000000000000000000000000000000
Walk Time (s)	7.0	7.0		7.0	7,0		7.0	7.0	0.000	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	-556:011/00FF FSF	11.0	11.0	8488887587758	11.0	11.0	
Pedestrian Calls (#/hr)	2	3	U/23608-5518	3	3		1	inas 1		7	7	
Act Effct Green (s)	18.0	42.0		**************************************	18,0		96.0	96.0		96.0	96.0	
, tot Ellot Orooli (a)	10.0	14.0			10,0		00.0	00.0		50.0	UU.U	

		→	7		_	~	1	T		-	¥	4
Lane Group	EBL	EBT	EBR	WBL V	VBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0,12	0.28	2010/03/00	(0.12		0,64	0.64		0.64	0.64	
v/c Ratio	0.33	0.06		(0.26		0.10	0.49		0.02	0.67	
Control Delay	65,4	23.3			54.9		11.6	15.9	is e Si	2.0	3.5	
Queue Delay	0.8	0.0		12	20.2		0.0	0.1	a de forma de la constanta de	0.0	1.9	
Total Delay	66.2	23.3		1	75.1		11.6	15.9		2,0	5.3	
LOS	E	С	u Principus na Amalamana in		F		В	В		A	Α	50000000000000000000000000
Approach Delay		54.4		11	75.1			15.7			5.3	
Approach LOS		D			F			В			Α	
Internal Residence						4.64		#				4

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green, Master Intersection

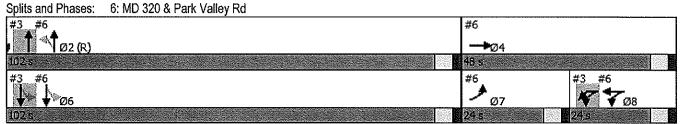
Natural Cycle: 110 Control Type: Pretimed Maximum v/c Ratio: 0.85

Intersection Signal Delay: 18.6 Intersection Capacity Utilization 63.8%

Analysis Period (min) 15

! Phase conflict between lane groups.

6: MD 320 & Park Valley Rd



Intersection LOS: B

ICU Level of Service B

Baseline Synchro 9 Report

	هر	-	*	•	4	*	4	†	-	-	↓	4
Lane Group	EBL	ÉBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1>			€}>		ኻ	1>		ሻ	^	
Traffic Volume (vph)	180	40	24	15	35	11	21	762	16	13	409	0
Future Volume (vph)	180	40	24	15	35	11	21	762	16	13	409	0
ldeal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	65		0
Storage Lanes	1		0	0		0	1		0	- 1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1,00	1.00	1,00	1.00	1.00	1.00	1,00	1.00	1.00	1,00
Ped Bike Factor		0.98			1.00		1.00	1.00				
Frt		0.943			0.975			0.997				
Flt Protected	0.950	7.055.7 (Auto-20.005.0 ton)	100 Per 80 To 100 Per 80 To 100 Per 80 Per 100	***************************************	0.988		0.950			0.950		
Satd. Flow (prot)	1770	1730	0	0	1794	0	1770	1855	0	1770	1863	0
Flt Permitted	0,950				0.988		0.443			0.197		
Satd. Flow (perm)	1770	1730	0	0	1786	0	824	1855	0	367	1863	= = 0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd, Flow (RTOR)		20			6			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			524			2298			186	
Travel Time (s)		12.8			11.9			52.2			4.2	
Confl. Peds. (#/hr)			5	5			1		6	6	easa	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	43	26	16	38	12	23	828	- 17	14	445	0
Shared Lane Traffic (%)			e and more to the feet and the second	managan da arang managan da arang managan da arang managan da arang managan da arang managan da arang managan	unional construction and war		en en la la companya de la companya de la companya de la companya de la companya de la companya de la companya		POR Gillow Modell Tower Street No.	erromente de como disconer de	nuciumateuriaena (vecalit	668-mmo/co-d-m-d
Lane Group Flow (vph)	196	69	0	0	66	0	23	845	-0	14	445	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12	e Social Anto-Social Co		12	
Link Offset(ft)		0			- 0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		. 9	15		9	15	706 Q	9
Turn Type	Prot	NA		Split	NA		Perm	NA	50/555/455/5/00/505	Perm	NA	
Protected Phases	7	4!		8!	8			2			6	
Permitted Phases							2			6	~ ^ ^	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	24.0	48.0		24.0	24.0		102.0	102.0		102.0	102.0	65335554
Total Split (%)	16.0%	32.0%		16.0%	16.0%		68.0%	68.0%		68.0%	68.0%	
Maximum Green (s)	18.0	42.0	55-50.0±59004995	18.0	18.0		96.0	96.0		96.0	96.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4,0	4.0	Sied
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	25000000000
Lost Time Adjust (s)	0.0	0.0	. G g g		0.0		0.0	0.0	2 (Salasan 6.)	0.0	0.0	
Total Lost Time (s)	6.0	6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes						7.0	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	energy compression	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		5	5		- 1	00.0		6	e e ∈ 6∈	
Act Effct Green (s)	18.0	42.0			18.0		96.0	96.0		96.0	96.0	

	<i>•</i>		Y	* *	- 🔨	4	†	1	1	↓	4
Lane Group	EBL	EBT	EBR .	WBL W	BT WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.12	0.28		■ ■ ■ 0.	12	0.64	0.64		0.64	0.64	
v/c Ratio	0.92	0.14		0.	30	0.04	0.71		0.06	0.37	
Control Delay	109.3	29.8		58	7	10,3	22.1		2.2	2.6	
Queue Delay	69.0	0.0		152	7	0.0	0.2		0.0	0.4	
Total Delay	178.2	29.8		211	.4	10.3	22.3		2.2	2.9	
LOS	F	С			F	В	С		Α	Α	
Approach Delay		139.6		211	.4		22.0			2.9	
Approach LOS		F			F		С			Α	
Intersection Summary		100		100			16.5 Santana 18.			= 16 16	
Area Type:	Other										
Cycle Length: 150						600 10 10 10 60 5 10 14 5					
Actuated Cycle Length:		control of the contro			FT						
Offset: 0 (0%), Referen	ced to phase 2:f	NBT, Start	of Green,	Master Inter	section						
Natural Cycle: 110											

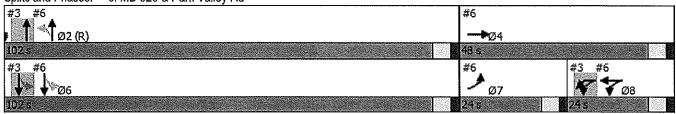
Natural Cycle: 110
Gontrol Type: Pretimed
Maximum v/c Ratio: 0.92

Intersection Signal Delay: 43.0 Intersection LOS: D
Intersection Capacity Utilization 67.7% ICU Level of Service C

Analysis Period (min) 15

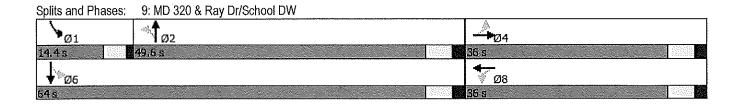
! Phase conflict between lane groups.

Splits and Phases: 6: MD 320 & Park Valley Rd



	۶		*	•	+	•	*	†	<i>></i>	/	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	1}			4		Ť	↑ Դ		ሻ	1>	
Traffic Volume (vph)	22	47	15	108	23	169	5	341	42	196	736	3
Future Volume (vph)	22	47	15	108	23	169	5	341	42	196	736	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50	Control and Control of Control	135	60		0
Storage Lanes	1		0	Ō		0	1		0	1		0
Taper Length (ft)	25			25			25			25		notes a series of the
Lane Util. Factor	1,00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1,00
Ped Bike Factor	1.00	0.97			0.95		0.96	0.97	X,X,X	0.87	1.00	
Frt		0.964			0.924			0,983			0.999	
Flt Protected	0.950	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			0.982		0.950	0,000		0.950		and and and and and and and and and and
Satd. Flow (prot)	1770	1737	0	0	1669	0	1770	3365	0	1770	1860	0
Fit Permitted	0.460	in Ai			0.854	and and the Mark	0.297			0.455	1999	
Satd. Flow (perm)	856	1737	0	0	1390	0	533	3365	0	737	1860	0
Right Turn on Red	000	1101	Yes	v	1000	Yes	JJJ	3303	Yes	101	1000	Yes
Satd. Flow (RTOR)		16	169		67	169		17	169			। ୯୬
		30			30			30			30	
Link Speed (mph)					285			326			2298	
Link Distance (ff)		309										
Travel Time (s)		7.0		2002222 444 22	6.5	Byanshiptong ten	******	7.4		400	52.2	
Confl. Peds. (#/hr)	1	0.00	77	77	0.00	1	63	A AA	102	102	0.00	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	51	16	117	25	184	5	371	46	213	800	3
Shared Lane Traffic (%)							8 4 18 18 18 18 18 18 18 18 18 18 18 18 18					200400000 .
Lane Group Flow (vph)	24	67	0	0	326	0	5	417	0	213	803	0
Enter Blocked Intersection	No	No	No	No	No	No_	No	No	_ No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12	variot appetroppisson a	tides describerations	12			12	ucations were work	onose estados e e e	12	41/65/4664/48
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16	and the state of t		16		4000400000000000000000	16	constitution and the sale
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		- 0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	Cl+Ex		CI+Ex	Cl+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	,	0.0	0.0		0.0	0.0	,, 51,50,00m	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		-0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			CI+Ex			CI+Ex	
Detector 2 Channel								guest de 200 (557 (657 (657 (657 (657 (657 (657 (657		volker er en i de Roma (R.)	e viewe epine STATE di Hell	
Detector 2 Extend (s)		0.0			0.0			0.0			0,0	
	Perm	NA	ana and an an an an an an an an an an an an an	Perm	NA		Perm	NA		pm+pt	NA	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	

	•	→	Y	•	*	•	Ť	<i>></i>	-	ļ	4
Lane Group	EBL	EBT	EBR WBI	. WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Protected Phases		4		8			2		1	6	
Permitted Phases	4			}		2			6		
Detector Phase	4	4	{	8 8		2	2		1	6	
Switch Phase											
Vlinimum Initial (s)	5.0	5.0	5.0			5.0	5,0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0			24.0	24.0		9.5	24.0	
Total Split (s)	36,0	36,0	36,0			49.6	49.6		14.4	64,0	
Total Split (%)	36.0%	36.0%	36.0%			49.6%	49.6%		14.4%	64.0%	
Maximum Green (s)	30.0	30.0	30.0	\$40 pt 100 pt 10 p		43.6	43.6		9.9	58.0	
Yellow Time (s)	4.0	4.0	4.0			4.0	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0	2,0			2.0	2.0		1.0	2.0	
∟ost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0		6.0	6.0		4.5	6.0	
Lead/Lag						Lag	Lag		Lead		
_ead-Lag Optimize?						Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0		3.0	3.0	
Recall Mode	None	None	None			Max	Max		None	Max	
Nalk Time (s)	7.0	7.0	7.0			7.0	7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0			11.0	11.0			11,0	
Pedestrian Calls (#/hr)	36	36	36			36	36			36	
Act Effct Green (s)	22.2	22.2		22.2		44.8	44.8		59.8	58.3	
Actuated g/C Ratio	0.24	0.24		0.24		0.48	0.48		0.65	0.63	
v/c Ratio	0.12	0.16		0.85		0.02	0.25		0.37	0.69	
Control Delay	27.7	22.1		46.8		16.0	15.2		9.6	16.4	
Queue Delay	0.0	0.0		0.0		0,0	0.0		0.0	0,0	
Total Delay	27.7	22.1		46.8		16.0	15.2		9.6	16.4	
LOS	C	C		D		В	В		Α	В	
Approach Delay		23.6		46,8			15.2			15.0	
Approach LOS		С		D			В			В	
ntersection Summary											
Area Type:	Other										
Cycle Length: 100		************************									
Actuated Cycle Length: 92	.5										
Natural Cycle: 60	,	2,000,000,000,000		***************************************					,,,,		
Control Type: Actuated-Un	coordinated										
Maximum v/c Ratio: 0.85	en en retresta de recentration de la company	en anna air an air an air an an Aire an Aire an Aire an Aire an Aire an Aire an Aire an Aire an Aire an Aire a				2 2 2	,		. , ,		
ntersection Signal Delay:	21.1			Intersection	LOS: C						
ntersection Capacity Utiliz				ICU Level		Ε					
				esperantes indices			G95655516866666666			aweatereter	



Analysis Period (min) 15

	٠	-	*	•	•	•	4	†	<i>/</i> *	\	Į.	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			₩		ካ	ሶ ጉ		ነና	4	
Traffic Volume (vph)	11	. 6	12	34	. 9	110	7	739	9	20	407	2
Future Volume (vph)	11	6	12	34	9	110	7	739	9	20	407	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0	entre de la Francia	0	50	era era arabente atte tragene	135	60		0
Storage Lanes	1		Ō	0		0	1		0	1		0
Taper Length (ft)	25		wasanina m ana	25			25			25		eraanimin. T
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1,00	1,00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	1.00	0.86	on distribution	Barrier March	0.94		0.97	1.00	Y Y Y	0.94	1.00	
Frt	1.00	0.902			0.903		0.01	0,998		0.07	0.999	
Fit Protected	0.950	0.002			0.989		0.950	0,000		0.950	0.000	
Satd. Flow (prot)	1770	1451	0	0	1636	0	1770	3518	0	1770	1860	0
Fit Permitted	0.520	1401	V	ν	0.918	V	0.506	JUIU	V	0.299	1000	v
The Control of the Co	967	1451	0	0	1453	0	910	3518	0	524	1860	0
Satd. Flow (perm)	901	1401		U	1400		910	- 30 J O		924	1000	
Right Turn on Red		e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	Yes		400	Yes			Yes	navetvani.		Yes
Satd. Flow (RTOR)		13			120			2			00	
Link Speed (mph)		30			30			30			30	instruction
Link Distance (ft)		309			285			326			2298	
Travel Time (s)	440-0440-04664 1 -046	7.0		socialistica was	6.5	est etertisere genta		7.4	erekera wazare	veste i kilg vijikigi nek	52.2	agaaagg g
Confl. Peds. (#/hr)	1		121	121		1	23		113	113		23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	7	13	37	10	120	8	803	10	22	442	2
Shared Lane Traffic (%)	Auto-statement Andrews	Persión de la Contraction	version en conservantari		avasvas valente om nevala	erene en al menadore managan		5 4 5 5 4 5 5 5 4 5 5 5 5 5 5 5 5 5 5 5	4-650-66-63-060-670-660	e programa de la composition de la composition de la composition de la composition de la composition de la comp	90140044444650	tionicologic estitic e e e e
Lane Group Flow (vph)	12	20	0	0	167	0	8	813	0	22	444	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12		ana mesaratan kanasasa	12	ALLEGA TERRETARION AND AND AND AND AND AND AND AND AND AN	mana an assault mana n	12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	Cl+Ex		Cl+Ex	Cl+Ex		CI+Ex	CI+Ex		Cl+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	and the second second second	0.0	0.0	on the second of the second second of	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0,0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	e, es e (111745)
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			CI+Ex	
Detector 2 Channel					ng a kalinda ini							estrogresidis)
Detector 2 Extend (s)		0,0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	eng dengan Kilika Wilila	pm+pt	NA	sylvan Silval
тин туро	I. Cilli	IVA		i Cilli	IAM		ı Gilli	1474		μπτρι	11171	

	•	-	→ ✓	***************************************	•	1	Ť		1	↓	*
Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4		8			2		1	6	
Permitted Phases	4		8			2			6		
Detector Phase	4	4	8	8		2	2		1	6	
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0	24.0	24.0		24.0	24.0		9.5	24.0	
Total Split (s)	34.0	34.0	34.0	34.0		54.0	54.0		12,0	66.0	
Total Split (%)	34.0%	34.0%	34.0%	34.0%	5	4.0%	54.0%	1:	2.0%	66.0%	
Maximum Green (s)	28.0	28.0	28.0	28.0		48.0	48.0		7.5	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4.0	4.0	•	3.5	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0		6.0	6.0		4,5	6,0	
Lead/Lag						Lag	Lag	J	_ead		
Lead-Lag Optimize?						Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None		Max	Max	1	lone	Max	
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)	36	36	36	36		36	36	,		36	
Act Effct Green (s)	13.0	13.0		13.0		59.4	59,4		65.1	63.6	usovacki
Actuated g/C Ratio	0.15	0.15		0.15		0.67	0.67		0.73	0.72	
v/c Ratio	0.09	0.09		0.53		0.01	0.34		0.05	0,33	
Control Delay	30.9	19.2		17.3		8.9	8.5		4.7	6.3	
Queue Delay	0.0	0.0		0.0		0.0	0.7		0.0	0.0	
Total Delay	30.9	19.2		17.3		8.9	9.2		4.7	6.3	
LOS	C	В		В		Α	Α		Α	Α	
Approach Delay		23.6		17.3			9.2			6.2	
Approach LOS		С		В			Α			Α	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 88.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

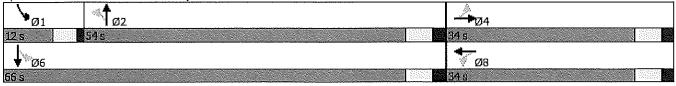
Maximum v/c Ratio: 0.53

Intersection Signal Delay: 9.5
Intersection Capacity Utilization 47.4%

Intersection LOS: A ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 9: MD 320 & Ray Dr/School DW



	<i>></i>	-	*	•	4	•	*	1	<i>*</i>	\	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	4		7	}		ሻ	^	7	ነኝ	*	7
Traffic Volume (vph)	79.	433	43	48	218	29	41	623	87	18	280	9
Future Volume (vph)	79	433	43	48	218	29	41	623	87	18	280	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85	edus i X . X . X. etc.	0	70		0	140	egeneration Transcription	175	160		160
Storage Lanes	1		Ő	j		0	. 1		1	1		1
Taper Length (ft)	25			25		aven ned X eed	25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00	e el yye	in di yy	1.00	1.79		escali XXIII	0.94		i de la Maria	
Frt	1.00	0.986			0.982				0.850			0.850
Flt Protected	0.950	0.800		0.950	0.302		0.950		0,000	0.950		0,000
		1828	0	1770	1823	0	1770	1863	1583	1770	1863	1583
Satd. Flow (prot)	1770	1020	e v		1023	U		1000	1000	0.245	1000	1000
Flt Permitted	0.501	4000		0.182	4000		0.544	anco.	4407	0.245 456	1863	1583
Satd. Flow (perm)	929	1828	, 0	339	1823	0	1013	1863	1487	450	1003	and the property of the property of the property of
Right Turn on Red	venera nepovoden nepov		Yes	ACCESTANTES AND STREET SEE	anasias airesta Sa	No	*#####################################	510022501100550	No			Yes
Satd. Flow (RTOR)		6										33
Link Speed (mph)		30	(104 (146 (144 (144 (144 (144 (144 (144 (14		30			30			30	
Link Distance (ft)		606			656			1086			555	
Travel Time (s)		13.8		The state of the s	14.9	2 (2)(5)(1)(1)(1)(2)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)		24.7	eren seattlette om	energia de la composição de la composição de la composição de la composição de la composição de la composição	12.6	un esta de desta de la constante de la constan
Confl. Peds. (#/hr)	3		11	11		3			15	15		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	471	47	52	237	32	45	677	95	20	304	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	86	518	0	52	269	0	45	677	95	20	304	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	***************************************	12	****************		12	and a second		12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16	***************************************		16		111-111-111-111-111-111-11-1	16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		. 9	15		9	15		9	15		9
Number of Detectors	1 1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	- 0	20	0	0	0
the state of the s				0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0 20	0			6		20	6	20	20	6	20
Detector 1 Size(ft)	20	6		20				and the second second		Cl+Ex	CI+Ex	Cl+Ex
Detector 1 Type	CI+Ex	CI+Ex	5881818555188855485	CI+Ex	Cl+Ex	(00000000000000000000000000000000000000	Cl+Ex	Cl+Ex	CI+Ex	UITEX	UITEX	UITEX
Detector 1 Channel					~ ^ ^		^ ^	0.0	^ ^	^ ^	^ ^	0.0
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0,0		0,0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)	de grande personal de grande de Productive	6	na propina nepodina e	Nestanes (Alta esta	6		gggegggggggggggg	6	90 <u>90</u> 000000000000000000000000000000000	81058319886585F0101	6	920gg-010gg-010g-4
Detector 2 Type		Cl+Ex			Cl+Ex			CI+Ex			CI+Ex	
Detector 2 Channel					varianta ar reservitore	et et en en en en en en en en en en en en en						www.co.co.co.co.co.co.co.co.co.co.co.co.co.
Detector 2 Extend (s)		0.0			0,0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm

	▶	→	¥ <	. 46	*	4	†	<i>*</i>	-	↓ .	4
Lane Group	EBL	EBT	EBR WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Protected Phases		4		8			2			6	
Permitted Phases	4		8			2 2		2	6		(
Detector Phase	4	4	8	8		2	2	2	6	6	(
Switch Phase											
Minimum Initial (s)	5,0	5.0	5.0	5.0		5.0	5,0	5.0	5.0	5.0	5,(
Minimum Split (s)	24.0	24.0	24.0	24.0		24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	45.0	45.0	45.0	45.0		55.0	55.0	55.0	55.0	55.0	55.0
Total Split (%)	45.0%	45.0%	45.0%	45.0%		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39.0	39.0	39.0		49.0	49.0	49.0	49.0	49.0	49,0
Yellow Time (s)	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2,0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6,0		6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag											
Lead-Lag Optimize?											
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11,0	11.0	11.0	11.0		11.0	11.0	11.0	11,0	11.0	11.0
Pedestrian Calls (#/hr)	36	36	36	36		36	36	36	36	36	36
Act Effct Green (s)	30,5	30.5	30.5	30.5		49.3	49.3	49.3	49.3	49.3	49.3
Actuated g/C Ratio	0.33	0.33	0.33	0.33		0.54	0.54	0.54	0.54	0.54	0.54
v/c Ratio	0.28	0.85	0.46	0.44		0.08	0,68	0.12	0.08	0,30	0.01
Control Delay	24.4	41.9	38.4	26.0		13.1	21.4	12.9	14.0	14.2	0.2
Queue Delay	0,0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	41.9	38.4	26.0		13.1	21.4	12.9	14.0	14.2	0.2
LOS	C	D	D	С		В	С	В	В	В	4
Approach Delay		39.4		28.0			19.9			13.7	
Approach LOS		ם		С			В			В	
Intersection Summary											
Area Type:	Other										
Cycle Length: 100		n a cultura da un con en alcuner.			este attention of the side of the						
Actuated Cycle Length: 91	9										
Natural Cycle: 60		1000-001000110001000100110				nenadarentarak			ető teleszeletető Arete eszb		
Control Type: Semi Act-Un	coord										
Maximum v/c Ratio: 0.85		paljerer pakarangan da saran		gandedd galleniae felliai	ankar tertingkan ta	rajaran kanagaa	024 (400 (204 (400)) (204 (*****************
Intersection Signal Delay:				ntersection							
Intersection Capacity Utiliz	ation 78.7%	trestativanajamanensi)[CU Level c	f Service	· D	::::::::::::::::::::::::::::::::::::::			0-49340-0040-0	Sanasan sanas
Analysis Period (min) 15											
Splits and Phases: 14: N	1D 320 & MI	D 410									
₹ø2					<u></u> 204						
55 s				. I	45 s						
4											

	<i>,</i>	>-	7	*	—	4.	*	1	<i>*</i>	/	↓	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	13		ሻ	1>		ሻ	*	7	۲۲	^	7
Traffic Volume (vph)	56	279	63	68	391	15	50	328	41	17	50 4	14
Future Volume (vph)	56	279	63	68	391	15	50	328	41	17	504	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	85		0	70		0	140	e e e e e e e e e e e e e e e e e e e	175	160	**************************************	160
Storage Lanes	Ĭ		Ŏ	i i		Ō	i		1	1		1
Taper Length (ft)	25			25			25			25		(00000)00000000000000000000000000000000
Lane Util. Factor	1.00	1.00	1,00	1,00	1.00	1.00	1.00	1,00	1.00	1.00	1.00	1,00
Ped Bike Factor	0.99	0.99		0.99	1.00				0.93	0.98		organizationary
Frt	0.00	0.973		0.00	0.995				0.850	0,00		0.850
Flt Protected	0.950	0.010		0.950	V.000		0.950		v.000	0.950		9,998
Satd. Flow (prot)	1770	1795	0	1770	1851	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.238	1100		0.336	1001	V	0.359	1000	1000	0.509	1000	1000
Satd. Flow (perm)	440	1795	0	617	1851	0	669	1863	1478	926	1863	1583
Right Turn on Red	440	1133	Yes	VII	1001	No	ooo	1000	No	020	1000	Yes
Satd, Flow (RTOR)		13	1 00			190			NO			33
		30			30			30			30	77
Link Speed (mph)		606			50 656			1086			555	
Link Distance (ft)		and the second s			000 14.9			24.7			12.6	
Travel Time (s)	,	13.8	40	40	14.9	7		24.1	17	17	12.0	
Confl. Peds. (#/hr)	7	0.00	12	12	0.00	7	0.00	0.00			0.00	0.92
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	61	303	68	74	425	16	54	357	45	18	548	15
Shared Lane Traffic (%)	3811821333 333 3333	eree ks ater			nisellisy fyry 1988	0145545550 % 1455				an an	-26	
Lane Group Flow (vph)	61	371	. 0	74	441	.0	54	357	45	18	548	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16	5000507054050606000	A COSTA NA SECTIONA SE A COSTA	16		00.000000000000000000000000000000000000	16		energyessykolololyteks	16	A46604644644
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	heritikos kansakinski	1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	CI+Ex	Cl+Ex		CI+Ex	CI+Ex		CI+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	nananan wasan terrebahan terre	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0,0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0,0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6	ayaya ayaya a mara a sa s	process of the control	6	er sasarsaan ar ee ee ee	anazasin men (* * * * *	6	and was presented the second of the second	and the second second second	6	9.68541 (2009 A.A.)
Detector 2 Type		CI+Ex			Cl+Ex			Cl+Ex			CI+Ex	
Detector 2 Channel	A second of the second of the	Satura to the common	and a company of	na agagar name - co	total and the control of the		an experience of the control of the	22. 2.2.2.2.1.1000	Company of the Compan	dayes day and enter a		and the second second
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm

	•	→	→ ✓	- ←	•	*	†	<i>></i>	/	↓	4
Lane Group	EBL	EBT	EBR WBI	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Protected Phases		4		8			2			6	
Permitted Phases	4		}			2	v rakovanaci krokena korek	2	6		ava errese avasta
Detector Phase	4	4		} 8		2	2	2	6	6	(
Switch Phase	- Carlo Sanakanan Carlo Sana Sila				nan tanàna ao ao ao ao ao ao ao ao ao ao ao ao ao	una paragonem mombro			oo karanoo o ahaa hii oo ahaan	elichenicel en interne	Sudanguag kantalan nerg
Minimum Initial (s)	5.0	5,0	5.0			5.0	5.0	5,0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	and the second of the second o	tive that start set along some	24.0	24,0	24.0	24.0	24.0	24.0
Total Split (s)	45,0	45.0	45.0			55.0	55.0	55.0	55.0	55,0	55.0
Total Split (%)	45.0%	45.0%	45.0%	A second of the second second second second		55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Maximum Green (s)	39.0	39.0	39.0			49.0	49.0	49,0	49.0	49.0	49.0
Yellow Time (s)	4.0	4.0	4.(4.0	4.0	4.0	4.0	4.0	4.(
All-Red Time (s)	2.0	2.0	2.0			2.0	2.0	2,0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s) Lead/Lag	6.0	6.0	6,0) 6.0		6.0	6.0	6.0	6.0	6.0	6.0
Lead-Lag Optimize?											
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None			Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0			7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0			11,0	11.0	11.0	11,0	11.0	11.0
Pedestrian Calls (#/hr)	36	36	3€			36	36	36	36	36	36
Act Effct Green (s)	26.2	26.2	26.2			49.3	49.3	49,3	49.3	49.3	49.3
Actuated g/C Ratio	0.30	0.30	0.30			0.56	0.56	0.56	0.56	0,56	0.56
v/c Ratio	0.47	0.68	0.40			0.14	0.34	0.05	0.03	0.52	0,02
Control Delay	36.7	32.4	30.7	and the second second		12.7	12.9	11.1	11.5	15.7	1.7
Queue Delay	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0,5	0.0
Total Delay	36.7	32.4	30.7			12.7	12.9	11.1	11.5	16.1	1.7
LOS	D	С	C			В	В	В	В	В	1
Approach Delay		33.0		38.1			12.7			15,6	
Approach LOS		С		D			В			В	
Intersection Summary											
Area Type:	Other										
Cycle Length: 100	osan wasan danara danara da					versi Azerbeideleksi					
Actuated Cycle Length: 87	.6										
Natural Cycle: 50		autoria de contrario un un contrario de con-		e annea e contrata de la cer		enen i neureri eeri enimoe	reversion and especial contracti	anda wanta ang ang asa ang			
Control Type: Semi Act-Ur	coord										
Maximum v/c Ratio: 0.80	erenne namen erene erene de eren	5.5 - 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -				er-december deciserate	rar marta Atres dos				
Intersection Signal Delay:				Intersection							
Intersection Capacity Utiliz	ation 76.4%	adatah dentah dengan dan dari		ICU Level	of Service	e D	Ananagarina ka				
Analysis Period (min) 15											
Splits and Phases: 14: N	MD 320 & MI	D 410		pt.	À						w .
[≪] Tø2					- *	4					

★ Ø8

Movement EBL EBR EBR WBL WBR NBL NBT NBR SBL SBT SBR Lane Configurations Image: Configuration of the co	Intersection				10 July			11174	34,00	1-11-1	W. C. T.	WEN	11 4 11
Canel Configurations	Int Delay, s/veh	5.5											
Traffic Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 63 42 8 17 45 56 7 51 2 19 21 3 Future Vol, veh/h 64 6	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	Lane Configurations		4			4			4			4	
Conflicting Peds, #/hr	Traffic Vol, veh/h	63	42	8	17		56	7		2	19		3
Sign Control Free	Future Vol, veh/h	63	42	8	17	45	56	7	51	2	19	21	3
RT Channelized - None - None - None - None - None Storage Length	Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
RT Channelized - None - None - None - None - None Storage Length	Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
Storage Length	RT Channelized			None		- 1		THE PARTY OF	THE REAL PROPERTY.		THE RESERVE TO SERVE THE PARTY OF THE PARTY	MARK	and the second second second second
Grade, % - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	Storage Length		-	-		-	-	-	-	-	-	-	-
Peak Hour Factor 92 92 92 92 92 92 92 92 92 92 92 92 92	Veh in Median Storage	e,# -	0	-		0			0			0	
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2	Grade, %	-	0	-	-	0	-	-	0	-	_	0	
Myntifier 68 46 9 18 49 61 8 55 2 21 23 3 Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 110 0 54 0 0 316 334 50 332 307 79 Stage 1 - - - - - 187 116 116 - Stage 2 - - - - 129 147 - 216 191 - - - 116 116 - - - - - - - - - 20 -	Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Major/Minor Major1 Major2 Minor1 Minor2	Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Conflicting Flow All 110 0 0 54 0 0 316 334 50 332 307 79 Stage 1 187 187 - 116 116 - Stage 2 129 147 - 216 191 - Critical Hdwy 4.12 4.12 7.12 6.52 6.22 7.12 6.52 6.22 Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 1551 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 815 775 - 786 742 - Platon blocked, % 875 775 - 786 742 - Platon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 1551 588 552 1018 547 572 981 Mov Cap-2 Maneuver 1480 1551 588 552 1018 547 572 981 Mov Cap-2 Maneuver 1480 1551 588 552 1018 547 572 - Stage 1 837 766 - 689 707 - Stage 2 837 766 - 689 707 Stage 2 588 552 1018 547 572 - Stage 1 777 710 - 847 790 - Stage 2	Mvmt Flow	68	46	9	18	49	61	8	55	2	21	23	3
Conflicting Flow All 110 0 0 54 0 0 316 334 50 332 307 79 Stage 1 187 187 - 116 116 - Stage 2 129 147 - 216 191 - Critical Hdwy 4.12 4.12 7.12 6.52 6.22 7.12 6.52 6.22 Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 1551 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 815 775 - 786 742 - Platon blocked, % 875 775 - 786 742 - Platon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 1551 588 552 1018 547 572 981 Mov Cap-2 Maneuver 1480 1551 588 552 1018 547 572 981 Mov Cap-2 Maneuver 1480 1551 588 552 1018 547 572 - Stage 1 837 766 - 689 707 - Stage 2 837 766 - 689 707 Stage 2 588 552 1018 547 572 - Stage 1 777 710 - 847 790 - Stage 2	N	11-1-1	Aleman Are		41.0		THE COLD IN			1 1 1 1 1 1			100
Stage 1						12-20			AZ ES			MANAGE.	TE SHAPE
Stage 2	And the state of t	The state of the last	0	0		-	-			-			79
Critical Hdwy 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 - 2.218 - 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 - 1551 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 875 775 - 786 742 - Platoon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 - 1551 - 588 552 1018 547 572 981 Mov Cap-2 Maneuver 1480 - 1551 - 588 552 1018 547 572 - Stage 1 588 552 - 547 572 - Stage 1 777 710 - 847 790 - Stage 2 837 766 - 689 707 - Approach EB WB NB SB HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 0 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3)/33 4/33 4/33 2 + 5477 9/1 172.5 + 124.1/33 4		4		1,76	2-10-19		100						
Critical Howy Stg 1 6.12 5.52 - 6.12 5.52 - Critical Howy Stg 2 6.12 5.52 - 6.12 5.52 - Follow-up Howy 2.218 - 2.218 - 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 - 1551 - 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 875 775 - 786 742 - Platoon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 - 1551 - 588 552 1018 547 572 981 Mov Cap-2 Maneuver 588 552 - 547 572 - Stage 1 588 552 - 547 572 - Stage 1 887 776 - 689 707 - Stage 2 887 776 - 689 707			•		-		and the latest terminal to the latest terminal t						
Critical Hdwy Sig 2 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 1551 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 875 775 - 786 742 - Platoon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 1551 588 552 1018 547 572 981 Mov Cap-2 Maneuver 588 552 1018 547 572 981 Mov Cap-2 Maneuver 837 766 - 689 707 - Stage 1 777 710 - 847 790 - Stage 2 837 766 - 689 707 847 790 - Stage 2 837 766 - 689 707 847 842 842 842 843 843 843 843 843 843 843 843 843 843		4.12	1.11	144	4.12					6.22			6.22
Follow-up Hdwy 2.218 2.218 3.518 4.018 3.318 3.518 4.018 3.318 Pot Cap-1 Maneuver 1480 1551 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - Stage 2 875 775 - 786 742 - Platoon blocked, % 588 552 1018 547 572 981 Mov Cap-1 Maneuver 1480 - 1551 - 588 552 1018 547 572 981 Mov Cap-2 Maneuver 588 552 52 - 547 572 - Stage 1 777 710 - 847 790 - Stage 2 837 766 - 689 707 - Stage 2 1551 12.2 11.8 HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM Sith Wile Q(veh) 0.4 0.1 - 0 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3)/33 4/33 4/33 4/33 4/33 4/33 4/33 4/33		-	-	-			-						
Pot Cap-1 Maneuver 1480 - 1551 - 637 586 1018 621 607 981 Stage 1 815 745 - 889 800 - 815 745 - 889 800 - 815 745 - 889 800 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 - 815 745 745 745 745 745 745 745 745 745 74	the second secon		1.	-									
Stage 1			-				-						
Stage 2 - - - - 875 775 - 786 742 - Platoon blocked, % - <t< td=""><td>Annual Table Control of the Control</td><td>1480</td><td>*</td><td></td><td>1551</td><td></td><td></td><td></td><td></td><td>1018</td><td></td><td></td><td>981</td></t<>	Annual Table Control of the Control	1480	*		1551					1018			981
Platoon blocked, %													
Mov Cap-1 Maneuver 1480 - 1551 - 588 552 1018 547 572 981 Mov Cap-2 Maneuver - - - - 588 552 - 547 572 - Stage 1 - - - - 777 710 - 847 790 - Stage 2 - - - - - 777 710 - 847 790 - Approach EB WB NB SB A A A A A A A A A A A A B B B A A A A A B B <td></td> <td></td> <td>0.0</td> <td></td> <td>_ \ *</td> <td></td> <td></td> <td>875</td> <td>775</td> <td>149</td> <td>786</td> <td>742</td> <td></td>			0.0		_ \ *			875	775	149	786	742	
Mov Cap-2 Maneuver - - - - 588 552 - 547 572 - Stage 1 - - - - 777 710 - 847 790 - Stage 2 - - - - 837 766 - 689 707 - Approach EB WB NB SB HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM Los B B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - - 0.012 - - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Control Delay (s) 12.2 7.5 <t< td=""><td></td><td></td><td>-</td><td>-</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>al Runzin</td><td>-</td><td></td></t<>			-	-		-					al Runzin	-	
Stage 1 - - - - 777 710 - 847 790 - Stage 2 - - - - - 837 766 - 689 707 - Approach EB WB NB SB HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - - 1551 - - 577 HCM Lane V/C Ratio 0.115 0.046 - - 0.012 - - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM Lane LOS B A A - A A - B HCM Lane LOS B <td></td> <td>1480</td> <td></td> <td></td> <td>1551</td> <td>8.</td> <td></td> <td></td> <td></td> <td>1018</td> <td></td> <td></td> <td>981</td>		1480			1551	8.				1018			981
Stage 2 - - - - 837 766 - 689 707 - Approach EB WB NB SB HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - - 0.3 - - 0.3 (60 ∠ /2.2) + 507.9 + 772.5 + 124.1 / 334 - - 0.3	(A) I was a fine property of the contract of t		-				-						2000
Approach EB WB NB SB HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3)/33 4/ 732 + 507.9 + 972.5 + 124.1/339				•		-	- 11 (·			The state of the s			**************************************
HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3)/334 732 + 507.9 + 472.5 + 124.1/339	Stage 2	the state of		* h		DAMAY.	19	837	/66	-	689	707	
HCM Control Delay, s 4.2 1.1 12.2 11.8 HCM LOS B B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3)/334 732 + 507.9 + 472.5 + 124.1/339	Approach	ED	1000000		VAID		27342	NID			OD.		
HCM LOS B Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 7.3 0 11.8 HCM Lane LOS B A A A B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3) / 33 4 732 + 507.9 174.1/334			1			MV said	11		WATER ST	700		1 10 - 200 11	
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 565 1480 1551 577 HCM Lane V/C Ratio 0.115 0.046 0.012 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 0 0.3 (60 × 12.2) + (43 × 1/.8) + (63 × 7.5) + (17 × 7.3) / 33 4 732 + 507.9 + 972.5 + 129.1 / 339	Didn't the second state of the second state of the second	4.2	1.11	(1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	1.1		THE STATE OF THE S	THE RESERVE OF THE PARTY OF THE	Salara S	Will Surf	STATE OF THE PARTY.	THE TAIL	
Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3	HUM LUS				1)			В			В	-301	
Capacity (veh/h) 565 1480 - 1551 - 577 HCM Lane V/C Ratio 0.115 0.046 - 0.012 - 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3	Minor Lane/Major Myr	nt I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	100	F 1317	× 13450
HCM Lane V/C Ratio 0.115 0.046 0.012 0.081 HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 0 0.3		SATE			1000				"-110				
HCM Control Delay (s) 12.2 7.5 0 - 7.3 0 - 11.8 HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 0 0.3		THE STATE OF THE S							-				
HCM Lane LOS B A A - A A - B HCM 95th %tile Q(veh) 0.4 0.1 - 0 - 0.3 $(60 \times 12.2) + (43 \times 11.8) + (63 \times 7.5) + (17 \times 7.3) / 334$ 732 + 507.9 + 972.5 + 124.1 / 334			- War and		0	NAME OF TAXABLE PARTY.		0					
HCM 95th %tile Q(veh) 0.4 0.1 0 0.3 $(60 \times 12.2) + (43 \times 11.8) + (63 \times 7.5) + (17 \times 7.3) / 334$ 732 + 507.9 + 972.5 + 124.1 / 334	Charles of the Control of the Contro		102200001	THE SHOP SHOW	the state of the state of			Tributa Contract	-				
$(60 \times 12.2) + (43 \times 11.8) + (63 \times 7.5) + (17 \times 7.3) / 334$ 732 + 507.4 + 472.5 + 124.1 / 334 1836 / 334 = 5.5	HCM 95th %tile Q(veh)	0.4	0.1	The second		0	100		0.3			
732 + 507.4 + 472.5 + 124.1/334	(60 × 12.2	2)+	143×	11.8	1 (6	3メブ	5)+	(17 x	7.3)/	334			
1836/334 = 5.5	732	+ 5	07.	1 +	4-	72.5	+	124.	1/3	34			
			/	831	3/3	34	5	5.	5				

Int Delay, s/veh	4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
ane Configurations		4			4			44			4		
Traffic Vol, veh/h	10	46	7	19	64	12	6	10	14	15	16	8	
Future Vol, veh/h	10	46	7	19	64	12	6	10	14	15	16	8	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	
RT Channelized			None		No fee	None			None	115,01		None	
Storage Length	4	-	-	-	-	-	-	-	-	-		-	
/eh in Median Storage,	# -	0	1000	\$1.50	0		1	0	15 Oct 12 1	1200	0	in the city	
Grade, %	_	0	_ allerid	-	0		_	0		-	0		
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mymt Flow	11	50	8	21	70	13	7	11	15	16	17	9	
WWITE Flow	1.1	30	0.	41	10	10	1	Owner 1	10	10	1.24	J	
Major/Minor M	lajor1	1,49-11	Mary a	Major2	(Fire)	A DIE	Minor1	No.		Minor2	1919	10, 4720	
Conflicting Flow All	83	0	0	58	0	0	206	200	54	206	196	76	
Stage 1	-			- 30			76	76	04	117	117	70	
Stage 2		-		1-9-2-76	-		130	124		89	79		
Critical Hdwy	4.12			4.12	Transport	E PROFES	7.12	6.52	6.22	7.12	6.52	6.22	
Critical Hdwy Stg 1	4.14		U. Jiliani	7.12	M 0 4		6.12	5.52	0.22	6.12	5.52	0.22	
Critical Hdwy Stg 2		ALWEST .	1212			-	6.12	5.52		6.12	5.52	- 121	
	2.218	4-6	130.5	2.218		2,1_5		4.018	3.318	3.518	4.018		
	1514	nawa.	A STATE OF	1546			752	696	1013	752	699	985	
Pot Cap-1 Maneuver	1014	- 0.14	N. 48	1040		-	933	832	1013	888	799	900	
Stage 1	OMERICANI	MINISTER OF		-	-		874	793		918	829	1 1000	The State of the S
Stage 2	7/	•	3 6 3	·		•	0/4	193	CL P	910	029	1	
Platoon blocked, %	4544	MINNES	-	4540	100	- seeps	740	004	1010	740	004	005	
Mov Cap-1 Maneuver	1514			1546	-	•	719	681	1013	719	684	985	
Mov Cap-2 Maneuver	· ·	-	-	and the same of		· ·	719	681		719	684	-	
Stage 1	1.		1/ =		**	•	926	825		881	788		
Stage 2	121 1	100/98		-	Marine Mil	- 26	835	782	other person	885	822		
	FD			VAID			ND			0.0			
Approach	EB	(Kotton)	VE W	WB		EMER	NB		1100	SB	J. H. T.		
HCM Control Delay, s	1.2			1.5	T. and	Min la	9.6			10.1		15-19-1	
HCM LOS			7			10,101	Α			В			
Minor Lane/Major Mvmt	No.	VBLn1	EBL	EBT	EBR	WBL	WBT	WDD	SBLn1				
	No Color			LDI	100		VVDI	VVDR				FIESTAT	
Capacity (veh/h)	A STATE	814			, to the	1546	15/10	100	745				
HCM Lane V/C Ratio	all the table		0.007	-	-	0.013	-		0.057	7/10/10/10			
HCM Control Delay (s)		9.6	7.4	0	7.0	7.4	0		10.1				
HCM Lane LOS		A	A	Α	-	A	Α	-	В				
HCM 95th %tile Q(veh)		0.1	0			0		1, (0.2	7/1)			
130 (30)	×9.	6)+	(39	210	.1) +	(10)	1.9	1+(174	1.4)/	227		
	20	4	393	9 1	74	+1	40,0	122	7				
5	88	,	0 10				27.						

Intersection	
Intersection Delay, s/veh 7.4	
Intersection LOS A	

Movement	EBL	EBT	EBR	WBL	WBT.	WBR	NBL -	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			43-			4	
Traffic Vol, veh/h	3	5	35	1	10	0	79	0	1	0	0	8
Future Vol, veh/h	3	5	35	1	10	0	79	0	1	0	0	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0,92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	5	38	1	11	0	- 86	0	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	0	0	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
												THE PARTY OF THE P
Approach	EB			WB			NB				SB	4000
Approach Opposing Approach	EB WB			WB EB			NB SB				SB NB	
	and the second second						area litte anning a little grant of the part				and the mention of the	
Opposing Approach Opposing Lanes Conflicting Approach Left	and the second second			EB			area litte anning a little grant of the part				and the mention of the	
Opposing Approach Opposing Lanes Conflicting Approach Left Conflicting Lanes Left	WB 1			EB 1			SB 1				NB 1	
Opposing Approach Opposing Lanes Conflicting Approach Left Conflicting Lanes Left Conflicting Approach Right	WB 1			EB 1			SB 1				NB 1	
Opposing Approach Opposing Lanes Conflicting Approach Left Conflicting Lanes Left Conflicting Approach Right Conflicting Lanes Right	WB 1 SB 1 NB			EB 1 NB 1 SB			SB 1 EB 1 WB			118-11 (1994)	NB 1 WB 1 EB	
Opposing Approach Opposing Lanes Conflicting Approach Left Conflicting Lanes Left Conflicting Approach Right	WB 1 SB 1			EB 1 NB 1			SB 1 EB 1				NB 1 WB 1	

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	7%	9%	0%
Vol Thru, %	0%	12%	91%	0%
Vol Right, %	1%	81%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	43	11	8
LT Vol	79	3	1	0
Through Vol	0	5	10	0
RT Vol	1	35	0	8
Lane Flow Rate	87	47	12	9
Geometry Grp	a casara 15	1	- 15	1
Degree of Util (X)	0.102	0.047	0.014	0.008
Departure Headway (Hd)	4.235	3.635	4,155	3.503
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	977	855	1017
Service Time	2.25	1.686	2.209	1.54
HCM Lane V/C Ratio	0.102	0.048	0.014	0.009
HCM Control Delay	7.7	6.9	7.3	6.6
HCM Lane LOS	A	A	Α	Α
HCM 95th-tile Q	0.3	0.1	0	0

Synchro 9 Report Baseline

nlersection	
ntersection Delay, s/veh 7.4	
ntersection LOS A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Vol, veh/h	15	21	52	3	8	0	49	2	1	1	5	6
Future Vol, veh/h	15	21	52	3	8	0	49	2	1	1	5	6
Peak Hour Factor	0,92	0.92	0.92	0.92	0.92	0.92	0.92	0,92	0.92	0.92	0,92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	23	57	3	9	a 4 0 4	53	2	# # 1	1	5	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			ŞB			NB		
Opposing Lanes	1			1		(F 45 E 5)	1			1		239
Conflicting Approach Left	SB	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		NB			EB			WB		
Conflicting Lanes Left	1			1			1			# 62 6 4 66		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.2			7.3			7.7			7		
HCM LOS	Α			Α			Α			Α		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	94%	17%	27%	8%
Vol Thru, %	4%	24%	73%	42%
Vol Right, %	2%	59%	0%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	52	88	11	12
LT Vol	49	15	3	1
Through Vol	2	21	8	5
RT Vol	1	52	-0	6
Lane Flow Rate	57	96	12	13
Geometry Grp	1	1	1	1
Degree of Util (X)	0.068	0.099	0.014	0.014
Departure Headway (Hd)	4,309	3.744	4,183	3.881
Convergence, Y/N	Yes	Yes	Yes	Yes
Сар	830	953	850	916
Service Time	2.344	1.785	2.235	1.931
HCM Lane V/C Ratio	0,069	0,101	0,014	0.014
HCM Control Delay	7.7	7.2	7.3	7
HCM Lane LOS	A	Α	A	Α
HCM 95th-tile Q	0.2	0.3	0	0

Synchro 9 Report Page 1 Baseline

1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600 Rd r Š Critical Lane Volume 786 Critical Lane Vol. Tot. 560 @ Wessex Evening Peak Hour 3:00/9:00 LEVEL OF SERVICE Opposing Lefts TOTAL 320 **5**^ 0 Service Level Location: MD 946 Lane Volume (1)x(2) * critical volume 4 423 953 260 1 Lane Use Volume(1) Factor(2) Use Factor Lane 0.1 0 0. 9. .53 37 29 II II 423+137 No. of Lanes 646+7 ٦ 01 m 4 +2+1 Indicate North by Arrow Date: Total Traffic Volumes Passenger Car Equivalent Movement RB Ø. SB Wessex Rd 3.0 4.0 V/c| Remarks: MD 320 LANE CONFIGURATION Left Turn Adjustments Ζ Σ Ϋ́ Ø Computed By: Conditions/ Design Year: Opposing Through and Right—Turn Volume Count Date: 7 7 * Critical Lane Volume 200 to 599 600 to 799 800 to 999 609 4/6 93 0 to 199 Sligo Ave ΠM 320 OF SERVICE 1000+ Opposing Lefts TOTAL TURNING MOVEMENT SUMMARY 3 0 LEVEL LEVEL OF SERVICE critical volume Lane Volume (1)x(2) Key - 0 m 4 416 107 AND Morning Peak Hour 7:30/8:30 AM Lane Use Volume(1) Factor(2) 1.0 1.0 0. 236+178 600 756+4 1+009 3 736 Movement $\frac{8}{2}$ S 9 Phasing 🛭 Remarks: Ø

2/c

7

X

			*	7		7	7	V/C
Sligo Ave	14.00 pm	Critical Lane Vol. Tot. 1000 or Less 1000 to 150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600	Critical Lane Volume	191	430	180	1/9	32
320 @ 8		——————O	Opposing Lefts	/3	12	J	3	TOTAL 10 L OF SERVICE
Location: MD	13 y 762 1 409 + 21	Service A B C C C C C C C C C C C C C C C C C C	Lane Volume (1)x(2)	877	409	081	/9	volume
	Evening Peak	Lane Use Factor 1.00 .53	Lane Use Factor(2)	1.0	1.0	1.0	1.0	* critical
	- 	No. of Lanes 1 = 1 2 = 1 4 4 = 1 = 1	Volume(1) F	91+292	604	081	11+58651	
Traffic Volumes Date:	Indicate North by Arrow ATION Park Valley Rd SS SS SS SS SS SS SS SS SS SS SS SS SS	Passenger Car Equivalent 1.1 2.0 3.0 4.0 5.0	Movement		SB	EB	WB	rks:
te: NA S/ Total dr: MN	ONFIGURATION Park		Ø		7	7	7	V/C Remarks:
Count Date: Conditions/ Design Year: Computed By:	LANE CONFIGURATION SO SO SO SO SO SO SO SO SO SO SO SO SO	hroug irn Vc 39 599 799 999	Critical * Lane Volume	1h.5		65, 1	52	28
JMMARY E	Sligo A	Opposing T Right—Tu 0 to 1: 200 to 600 to 800 to	Opposing Lefts	9	42	1	3	TOTAL OF SERV
TURNING MOVEMENT SUMMARY AND LEVEL OF SERVICE	#	X 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Lane Volume (1)x(2)	535	737	65	5.5	I volume LEVEL
NING MOV	30/8:30		Lane Use Factor(2)	1.0	1.0	1.0	1.0	* critical
TUR	│	M/3 [Volume(1)	11+625	737	وک	21+12+61	
	Morning Peak Houri	Phasing (8) Sp // 1	Ø Movement	œ Z	SB	B	WB	Remarks:

		TURNING MOVEMENT SUMMARY	VEMENT SI	JMMARY	Count Date:		NA Total Traffic Volumes	v q	ŏ	Location: MD	320 @	Ray Dr	
	Ē	LEVEL (AND OF SERVICE	LLJ C	Design Year: Computed By		NM	Date:	nestenessee				***************************************
Morning Peak Hour 7:30/8:30	30/8	:30	AM				Indicate North by Arrow		Evening Pe	Peak Hour	3:00	14:00 Pm	
/96 736 3					LANE	CONFIGURATION	RATION			20 407 2			
7 198 198 198 198 198 198 198 198 198 198			1 1		025 GM		School DW						1
			<u>†</u>		-	•			12/2	+ F		† 7 	
42 341 5				Ray	♣	45	MD 320			739	. 9		ı
			× × ×	Opposing Throu	<u> </u>	ugh and Volume	Sel	No. of Lanes	Lane Use Footor	Service	,	Critical Lane Vol. Tot.	
			- 0 "	2 S C	U to 199 200 to 599 600 to 700		7.1 2.0 k		1.00	СШОЦ		1000 to 1150 1150 to 1300	
<u> </u>			ა 4 ი	9	800 to 999 1000+		o o o	3 m 4	.37 .29		(o 1600 than 1600	
Lane Use Volume(1) Factor(2)	Lane L Factor	Jse (2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
341+42 6.53	0.is	~	203	961	399		a N	73949	5.53	326	02	416	7
	1.0		739	ام	444	7	SB	407+ Z	1.0	409	^	914	
	1.0		9.8	80/	194	7	EB	2/+9-21	1.0	30	48	49	7
0.1 52+4611	1.0		145	22	164		WB	377 9	1.0	96	//	57	
*					- 1				*		-	ţ	1
) 	CHUCAL VOLUTIE	IOTALĮ	938) > -	Keriorks:		5 5	* critical volume		6/80	2/ <u>/</u>
•			LE VE	LEVEL OF SERVICE	VICE					LEVEL	I OF SERVICE	//CF	

2/2 1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600 Evening Peak Hour 3:00/4:00 PM Critical Lane Volume 3/0/ Critical Lane 554 410 345 016 Vol. Tot. OF SERVICE ð Opposing Lefts TOTAL 162 80 0 2 8 320 Service Level LEVEL 41 Location: MD critical volume 328 Lane Volume (1)x(2) 342 504 328 クログ 50 504 1 * Lane Use Volume(1) Factor(2) Lane Use Factor 1.0 1.0 0 0.1 279 90. .37 29 3 II II No. of Lanes 279+63 3/+168 328 504 Indicate North by Arrow Date: Traffic Volumes Passenger Car Equivalent Movement RS 8 ₩ 3.0 5.0 5.0 <u>;</u>; MD 410 MD Remarks: 320 LANE CONFIGURATION Left Turn Adjustments Total Computed By: MN ۷ Z Ø Opposing Through and Right—Turn Volume Conditions/ Design Year: <u>></u> Count Date: 7 1 * Critical Lane Volume 600 to 799 800 to 999 326 TOTAL 165 200 to 599 527 641 32, 0 to 199 350ΠM LEVEL OF SERVICE MD 410 1000+ Opposing Lefts TURNING MOVEMENT SUMMARY \$ 8 5 LEVEL OF SERVICE * critical volume Lane Volume (1)x(2) ξe ζ 747 - 0 m 4 m 623 280 476 Morning Peak Hour 7:30/8:30 APM AND Lane Use Volume(1) Factor(2) 20 0. 0. 1.0 0. 433+43 87 623 62+812 673 082 18 280 9 41 † * Movement 433 æ 5 8 EB Ø Remarks: Phasing Ø

7

X

5		TURNING MOVEMENT SUMMARY AND LEVEL OF SERVICE	VEMENT SUM AND OF SERVICE	UMMARY	Count Date: _ Conditions/ Design Year: Computed By		NA Total Traffic Volumes MN Date	mes Date:		Location: Gro	Grant Ave @	Chestnut	A <
10 Pec		7:30/8:30		Grant	Left Turn	CONFIGURATION Gran Adjustments	Grant Ave Chestinut Chesti	 	Evening Pe	H			
Phasing @			χ - 0 ω 4 ω	Opposin Right 20 20 80 80	Opposing Through and Right—Turn Volume 0 to 189 200 to 599 600 to 799 800 to 999 1000+	lume lume	Passenger Car Equivalent 1.1 2.0 3.0 4.0 5.0	No. of Lanes 1 = 2 3 = = 4	Lane Use Factor 1.00 .53 .37	Service Level DOOR THE	0	Critical Lane Vol. Tot. 1000 or Less 1000 to 1150 1150 to 1300 1300 to 1450 1450 to 1600 Greater than 1600	
Ø Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
aN BN	7+12+6	1.0	09	61	29	7	BN NB	6-10+14	1.0	30	15	45	7
es e	19+21+3	0. 0.	43	7	50		S E	1541/48	0. 1.	39	0 0	27	
g M	95+56+61		02/	63	183	2	MB MB	2/+69+12	1.0	97	0/	107	7
Remarks:		* critical	critical volume	TOTAL 26	262 MCE	V/C	Remarks:		* critice	* critical volume	TOTAL Z	2	\/C

TURNING	۱ .

G MOVEMENT SUMMARY EVEL OF SERVICE AND

Conditions/ Total Traffic Volumes Design Year: Computed By: MN Count Date: NA

Location: Grant Ave @ Holly Ave Date:

Hour Ab Hour A	Service Critical Lane Level Vol. Tot. A = 1000 or Less B = 1000 to 150 C = 1150 to 150 C = 1300 to 1450 E = 1450 to 1600 F = Greater than 1600 Lane Volume Opposing Critical (1)x(2) Lefts Volume
Evening Pee	No. of Lane Lanes Factor 1 == 1.00 2 == .53 3 == .37 4 == .29 Volume(1) Factor(2)
Indicate North by Arrow Grant Ave Grant Ave Here is the state of t	Passenger Car Equivalent 1.1 2.0 3.0 4.0 5.0
Crant Ave	Opposing Through and Right-Turn Volume o to 199 200 to 599 600 to 799 800 to 999 1000+ Opposing Critical * Lane Lefts Volume
<u>†</u>	Key 1 2 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	STJP
TINOH W 19 19 19 19 19 19 19 19 19 19 19 19 19	NY STO
Morning Peak Hour	Phasing @ ALC WAY
	N N N

2 > >

TOTAL /52

* critical volume

V/C Remarks:

/3/

* critical volume

Remarks:

LEVEL OF SERVICE TOTAL

LEVEL OF SERVICE

7 7

64

2

0.

491211 1+5+6

SB BB

7 7

8 80

79

800

0. 0. 1.0 1.0

1466 \Diamond

S B SB

1.0

88

0. 0.

25+12+51

EB 9

44

43

375 + 35 1+10

R R

7

۲)

3+8

30

92

15/ 3

APPENDIX G CROSSWALK EVALUATIONS

	m the language with the Columbia Columbia		New Transcription of Control of C	***************************************
Approach	WB	NB	SB	NE
Crosswalk Length (ft)	24.0	36.2	36.4	21.2
Crosswalk Width (ft)	12.0	12.0	12,0	12.0
Total Number of Lanes Crossed	2	2	3	1
Number of Right-Turn Islands	0	. 0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	0	8	6
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9,0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0,0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	_ 0 − 0	- 0	0=	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service			4 6 S-3	9 N 3 - 1
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	•		6. 5. 6. 6. 5. 6. 6. 6. 6. 7.8	•
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.76	2.46	2.51	1.65
Pedestrian Crosswalk LOS	Α	В	В	Α

Approach	WB	NB	SB	NE
Crosswalk Length (ft)	24.0	36.2	36.4	21.2
Crosswalk Width (ft)	12.0	12.0	12.0	12,0
Total Number of Lanes Crossed	2	2	3	1
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	0	8	6
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9,0	9,0	9,0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped: Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	. 0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service		0,0		-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code			V.V	-
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.48	2.50	1.60
Pedestrian Crosswalk LOS	A	2O B	2.00 B	1.00 A

	The special section is			
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	37.9	35.3	37.0	36.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9,0	9.0	9,0	9.0
Right Corner Size B (ff)	9.0	9.0	9.0	9.0
Right Gorner Curb Radius (ft)	0,0	0.0	0,0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped, R, Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	. 0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service				-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	288			
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.79	2.44	2.45
Pedestrian Crosswalk LOS	2. 02	Α	т. В	2.10 B
, Jack India Stock India 1995				

Synchro 9 Report Page 1 Baseline

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	37.9	35.3	37.0	36.2
Crosswalk Width (ft)	12.0	12.0	12,0	12.0
Total Number of Lanes Crossed	3	2	3	3
Number of Right-Turn Islands		0	0.0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9,0	9,0	9,0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0,0	0.0	0,0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	# 15 B O	0	0=	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped, R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	-0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	10 10 E			
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code				•
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	1.81	2.41	2.46
Pedestrian Crosswalk LOS	В	Α	В	В

Approach	EB	WB	NB	SB	
Crosswalk Length (ft)	38.0	34.6	48.0	36.0	
Crosswalk Width (ft)	12.0	12.0	12.0	12.0	
Total Number of Lanes Crossed	3	2	4	3	
Number of Right-Turn Islands	0	0	0	0	
Type of Control	None	None	None	None	
Corresponding Signal Phase	6	2	4	8	
Effective Walk Time (s)	0.0	0.0	0.0	0.0	
Right Corner Size A (ft)	9.0	9.0	9.0	9.0	
Right Corner Size B (ft)	9.0	9.0	9.0	9.0	
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00	
Ped. Left-Right Flow Rate (p/h)	0	0	0	0	
Ped. Right-Left Flow Rate (p/h)	0	0	0	0	
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0	
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0	
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0	
Veh. RTOR Flow in Walk (v/h)	0	0	0	0	
85th percentile speed (mph)	30	30	30	30	
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0	
Right Corner Quality of Service	-	-	-	-	
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0	
Crosswalk Circulation Code	-	-	12		
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0	
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	
Pedestrian Crosswalk Score	1.99	2.04	2.48	2.47	
Pedestrian Crosswalk LOS	Α	В	В	В	



Approach	EB	WB	NB	SB
Crosswalk Length (ft)	38.0	34.6	48.0	36.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	4	3
Number of Right-Turn Islands	0	- 0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	- 30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	5 0 E 4	9 9 9 .		•
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	•	9 6 5 5		9 9 C
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.97	1.83	2.47	2.41
Pedestrian Crosswalk LOS	A	A	В	В

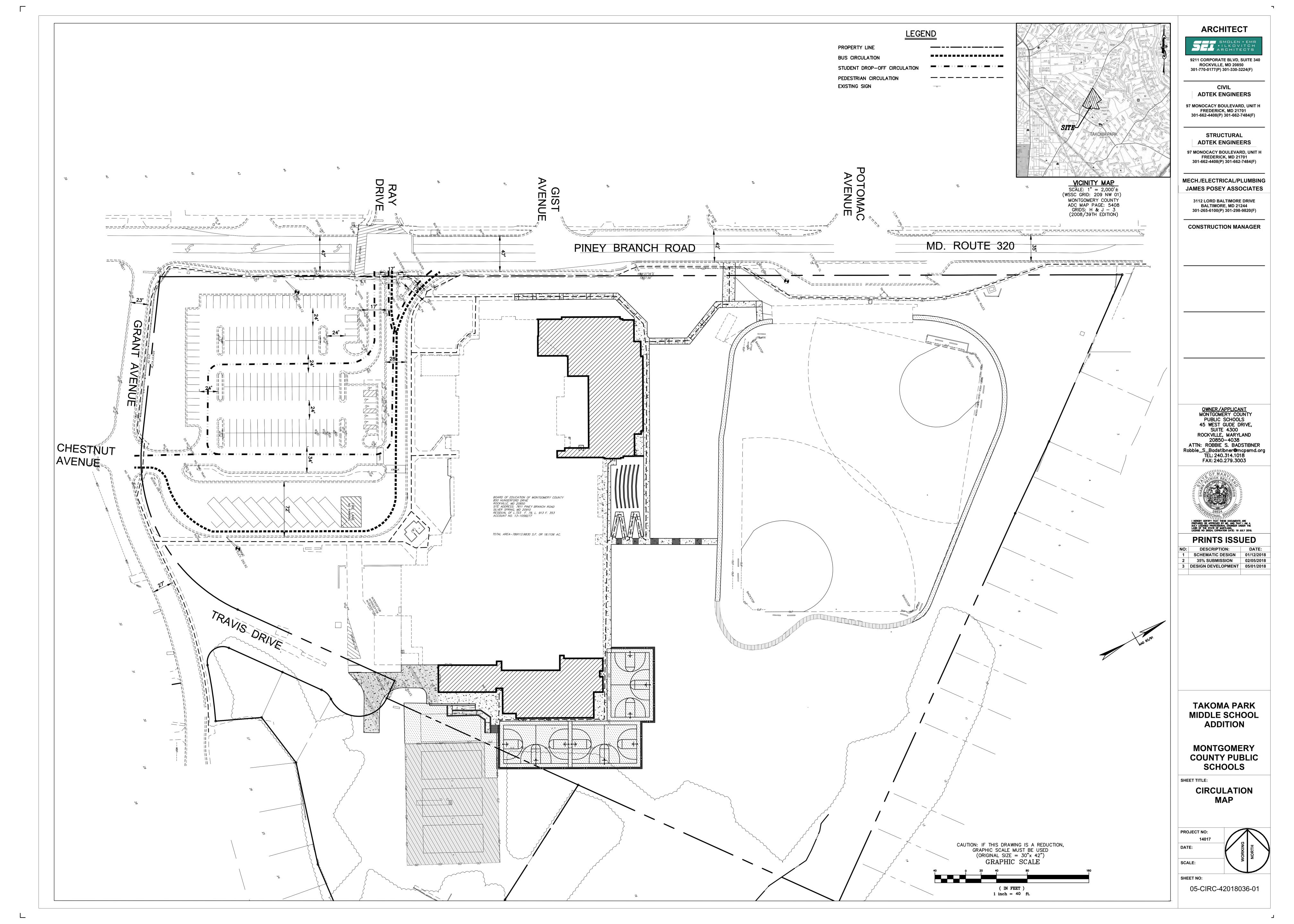
A	FD	Win	NID	ee.
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	38.1	37.8	48.0	48.7
Crosswalk Width (ft)	12,0	12.0	12,0	12.0
Total Number of Lanes Crossed	3	3	4	4
Number of Right-Turn Islands	0	- 0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9,0	9.0	9,0	9,0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0 = 0	0		0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service		C (3 5) -8		
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	•.··		V.U	•
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Gode	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	2.25	2.44	2.42
Pedestrian Crosswalk LOS	220 В	<u> Б</u> 20	B	2.12 B
1 GOOGLIGHT OTOCOWORK ECO				

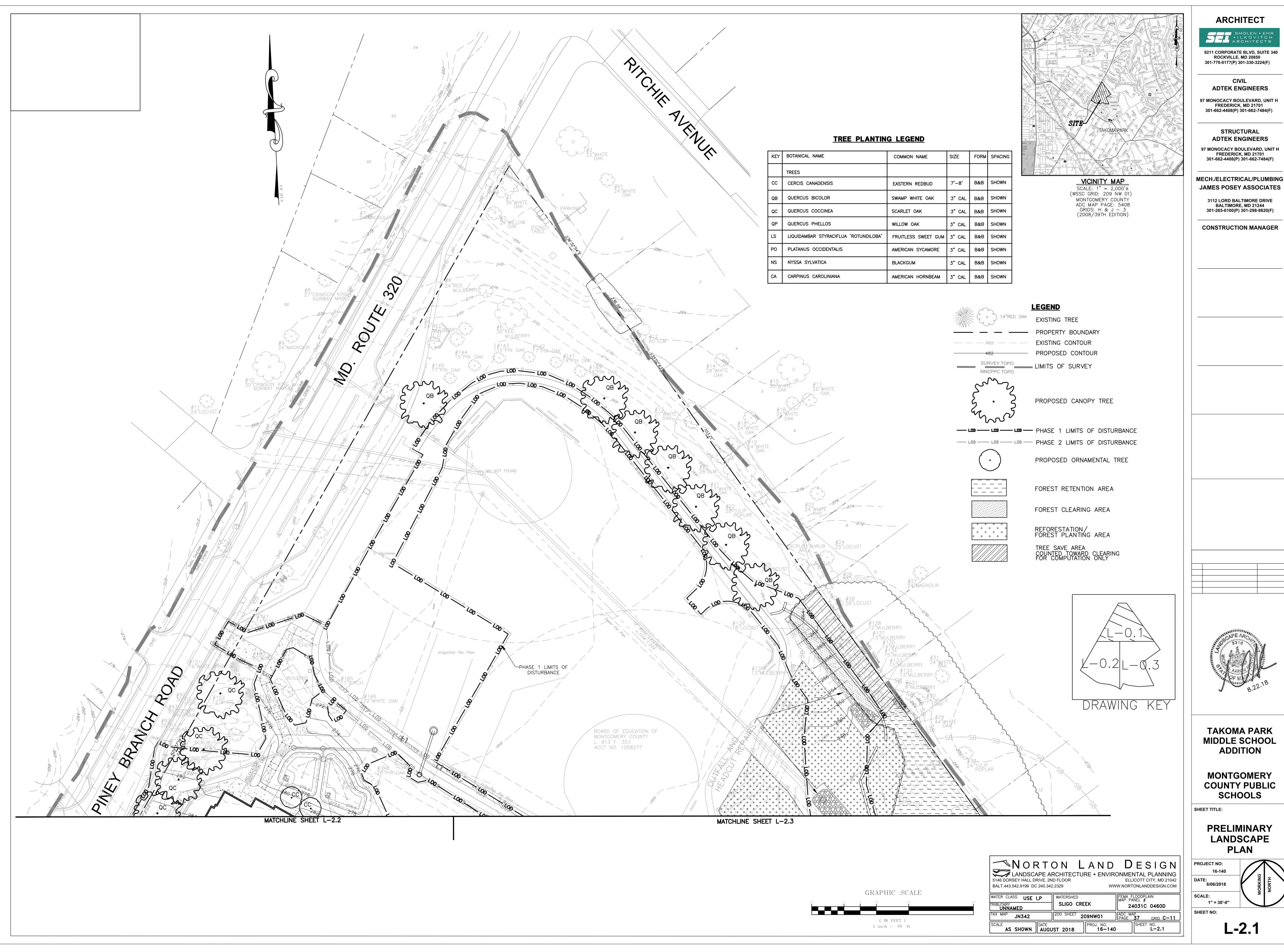
Synchro 9 Report Page 1 Baseline

THE AND THE PROPERTY OF THE PR				(/////////////////////////////////////
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	38.1	37.8	48.0	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	4	4
Number of Right-Turn Islands	0	- 0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0,0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	- 0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	- 0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	50 Sept	•		* S
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code		•		-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.26	2.24	2.42	2.39
Pedestrian Crosswalk LOS	В	В	В	В

Approach		
Approach Direction	EB	
Median Present? Approach Delay(s)	No 2.0	
Level of Service	2.0 A	
Crosswalk	•	
Length (ft)	32	
Lanes Crossed	2	
Veh Vol Crossed	87	
Ped Vol Crossed	0	
Yield Rate(%) Ped Platooning	0 No	
1 out latouring	140	
Critical Headway (s)	12.14	
Prob of Delayed X-ing	0.25	
Prob of Blocked Lane Delay for adq Gap	0.14 7.74	•
Avg Ped Delay (s)	1.97	
Approach		
Approach Direction	WB	
Median Present?	No	
Approach Delay(s) Level of Service	2.0 A	
	^	
Crosswalk Length (ft)	32	
Lanes Crossed	2	
Veh Vol Crossed	<u>-</u> 87	
Ped Vol Crossed	0	
Yield Rate(%) Ped Platooning	0 No	
red rialboiling	NO	
Critical Headway (s)	12.14	
Prob of Delayed X-ing	0,25	
Prob of Blocked Lane	0:14 7.74	
Delay for adq Gap Avg Ped Delay (s)	7.74 1.97	
a. od polaj (o)	1,71	

Approach		
Approach Direction Median Present?	EB Na	
Approach Delay(s)	No 2.6	
Level of Service	Α	
Crosswalk		
Length (ft) Lanes Crossed	32 2	
Veh Vol Crossed	110	
Ped Vol Crossed Yield Rate(%)	0	
Ped Platooning	No	
Critical Handway (a)	12.14	
Critical Headway (s) Prob of Delayed X-ing	0.31	
Prob of Blocked Lane	0.17	
Delay for adq Gap Avg Ped Delay (s)	8,26 2,56	
Ť.		
Approach		
Approach Direction Median Present?	WB No	
Approach Delay(s)	2.6	
Level of Service	Α	
Crosswalk	20	
Length (ft) Lanes Crossed	32 2	
Veh Vol Crossed	110	
Ped Vol Crossed Yield Rate(%)	0 0	
Ped Platooning	No	
Critical Headway (s)	12.14	
Prob of Delayed X-ing	0.31	
Prob of Blocked Lane Delay for adq Gap	0.17 8.26	
Avg Ped Delay (s)	2.56	



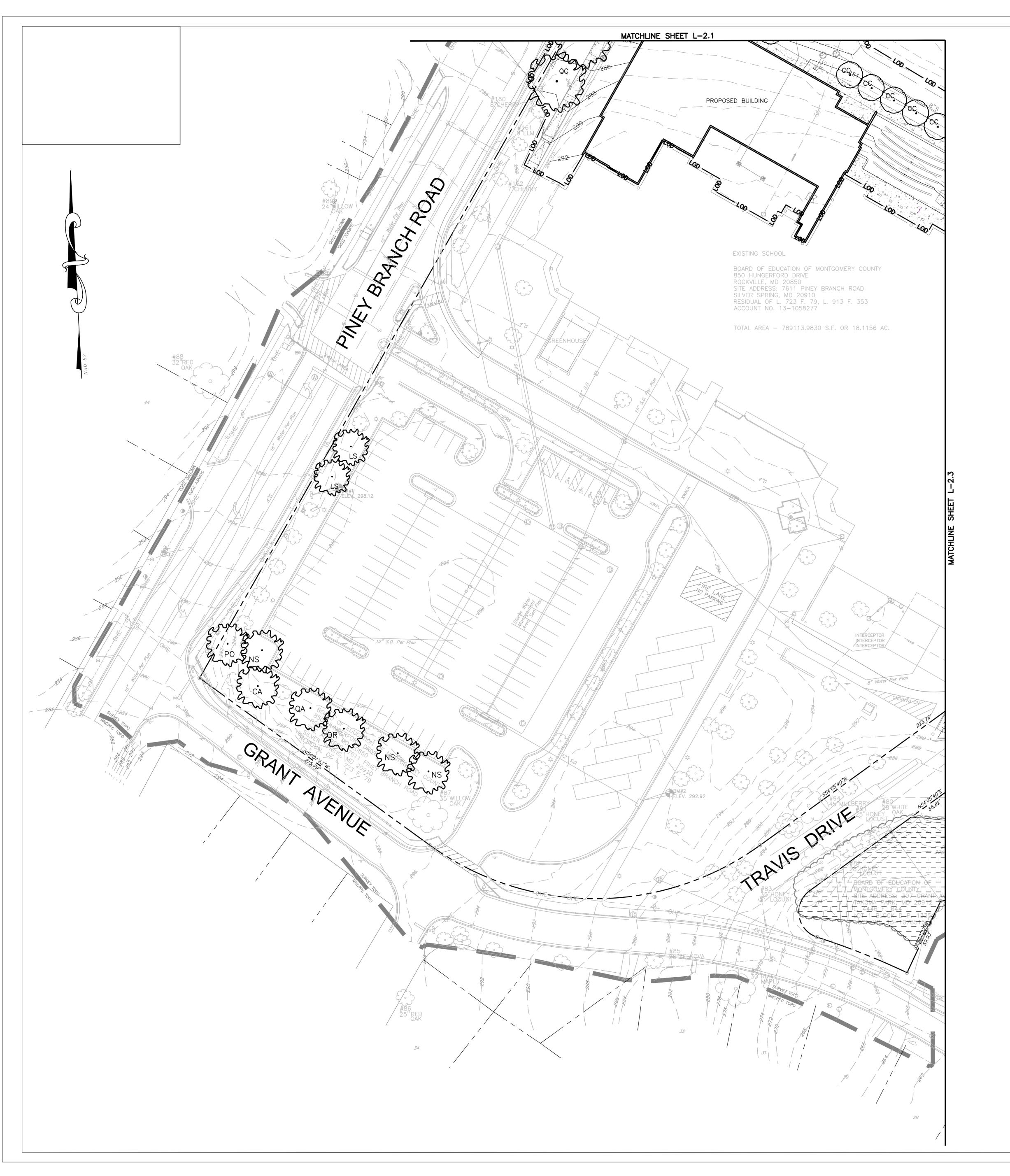


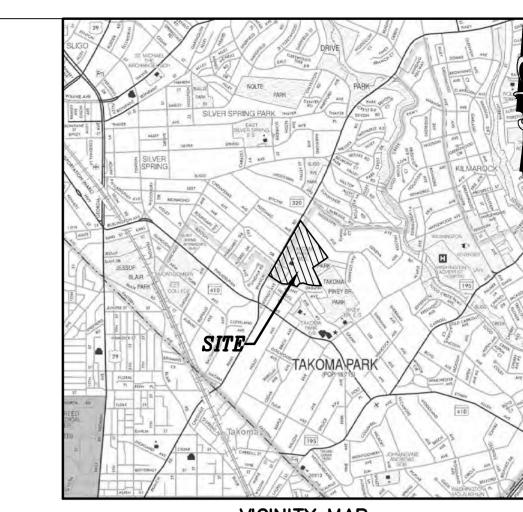
9211 CORPORATE BLVD, SUITE 340

97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701 301-662-4408(P) 301-662-7484(F)

MIDDLE SCHOOL

LANDSCAPE

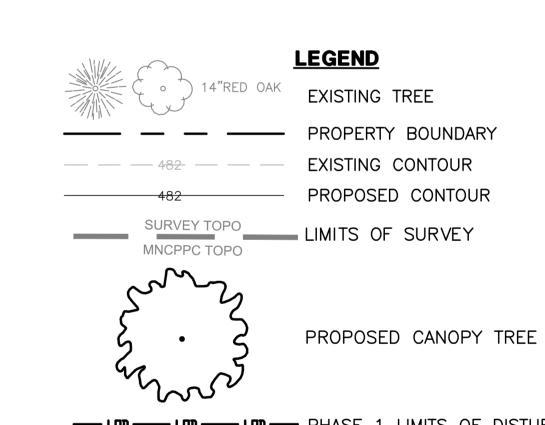




VICINITY MAP SCALE: $1" = 2,000' \pm$ (WSSC GRID: 209 NW 01) MONTGOMERY COUNTY ADC MAP PAGE: 5408 GRIDS: H & J - 3 (2008/39TH EDITION)

TREE PLANTING LEGEND

KEY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING
	TREES				
CC	CERCIS CANADENSIS	EASTERN REDBUD	7'–8'	B&B	SHOWN
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL	B&B	SHOWN
QC	QUERCUS COCCINEA	SCARLET OAK	3" CAL	B&B	SHOWN
QP	QUERCUS PHELLOS	WILLOW OAK	3" CAL	B&B	SHOWN
LS	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	FRUITLESS SWEET GUM	3" CAL	B&B	SHOWN
РО	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	3" CAL	B&B	SHOWN
NS	NYSSA SYLVATICA	BLACKGUM	3" CAL	B&B	SHOWN
CA	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3" CAL	B&B	SHOWN

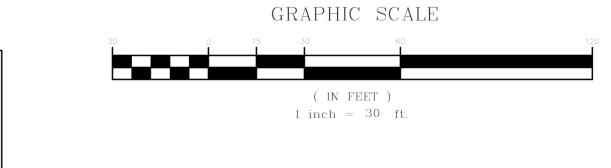


— LOD — LOD — PHASE 2 LIMITS OF DISTURBANCE PROPOSED ORNAMENTAL TREE

FOREST RETENTION AREA

FOREST CLEARING AREA

REFORESTATION/ FOREST PLANTING AREA



NORT	ND DESIGN					
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING 5146 DORSEY HALL DRIVE, 2ND FLOOR ELLICOTT CITY, MD 2104						
BALT.443.542.9199 DC 240.342	2.2329	WWW.NORTONLANDDESIGN.COM				
WATER CLASS USE I,P TRIBUTARY	WATERSHED SLIGO CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0460D				

VATER CLASS USE I,P RIBUTARY UNNAMED	WATERSHED SLIGO CREEK	FEMA FLOODPLAIN MAP PANEL # 24031C 0460D
JN342	200 SHEET 209NW01	ADC MAP PAGE 37 GRID C-11
AS SHOWN DATE AUG	UST 2018 PROJ. NO. 16-14	SHEET NO. L-2.2

ARCHITECT

9211 CORPORATE BLVD, SUITE 340 ROCKVILLE, MD 20850 301-770-0177(P) 301-330-3224(F)

ADTEK ENGINEERS

97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701 301-662-4408(P) 301-662-7484(F)

STRUCTURAL **ADTEK ENGINEERS** 97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701 301-662-4408(P) 301-662-7484(F)

MECH./ELECTRICAL/PLUMBING

JAMES POSEY ASSOCIATES 3112 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 301-265-6100(P) 301-298-9820(F)

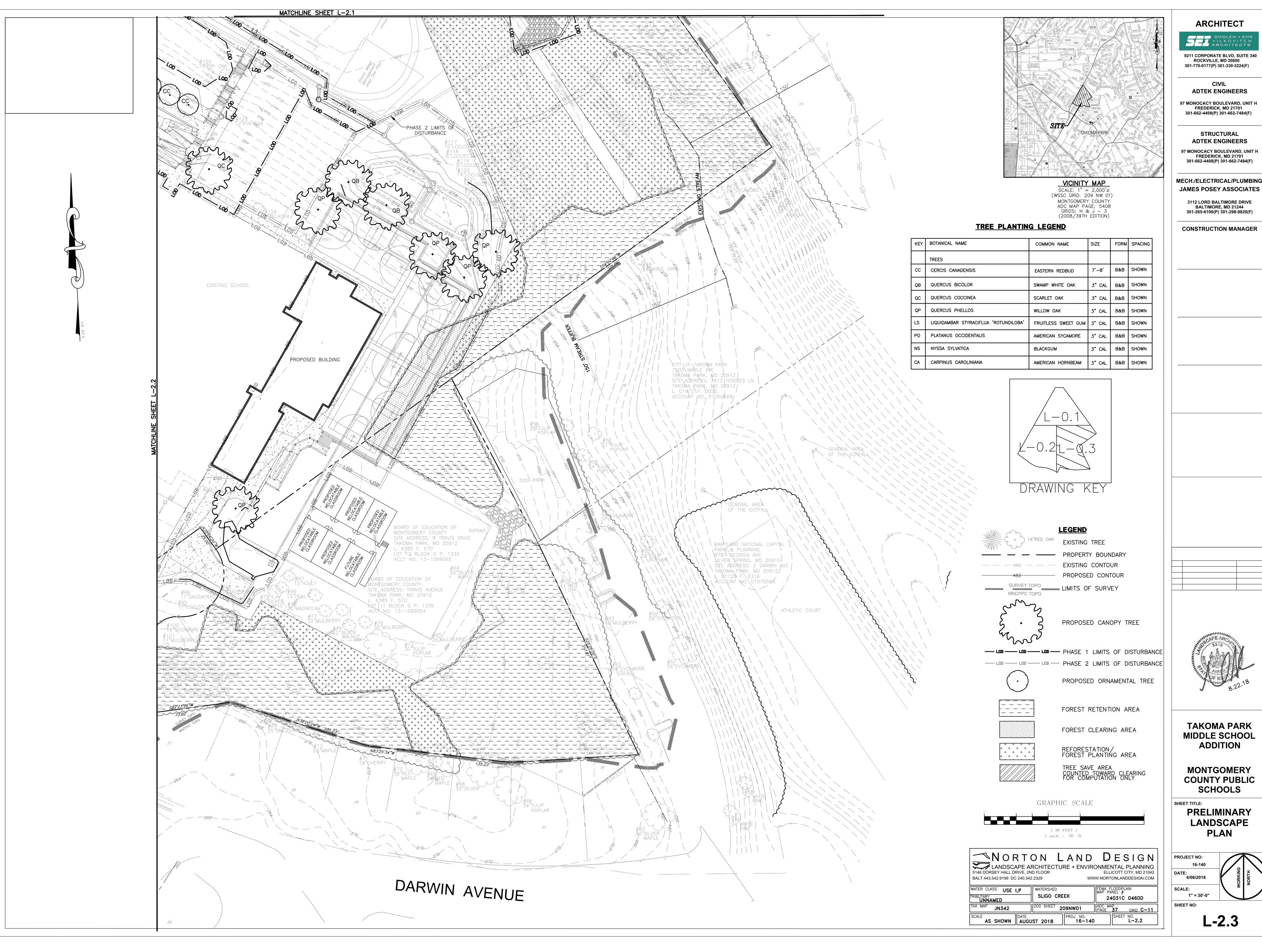
CONSTRUCTION MANAGER



TAKOMA PARK MIDDLE SCHOOL **ADDITION**

MONTGOMERY COUNTY PUBLIC SCHOOLS

SHEET TITLE: **PRELIMINARY** LANDSCAPE PLAN



9211 CORPORATE BLVD, SUITE 340

301-770-0177(P) 301-330-3224(F)

ADTEK ENGINEERS

97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701

STRUCTURAL **ADTEK ENGINEERS** 97 MONOCACY BOULEVARD, UNIT H FREDERICK, MD 21701

301-265-6100(P) 301-298-9820(F)

CONSTRUCTION MANAGER

TAKOMA PARK MIDDLE SCHOOL **ADDITION**

MONTGOMERY COUNTY PUBLIC SCHOOLS

PRELIMINARY LANDSCAPE

L-2.3

PLANTING SPECIFICATIONS SCOPE: Consists of supplying the planting trees, shrubs and herbaceous materials (groundcovers) including the staking of trees as specified herein and the supplying of materials, labor, equipment and work related services necessary for same as specified herein. The work of this section includes, but is not limited to:

> watering wrapping staking soil preparation plant materials planting replacement

MATERIALS: Wherever the following items appear in the specifications, they shall be as follows:

Topsoil The Contractor shall provide required natural, friable, fertile, fine sandy loam possessing the characteristics of representative topsoil in the vicinity which produce heavy growths of vegetation. The topsoil shall be free from subsoil, noxious weeds, stones, lime, cement, ashes, slag or other deleterious matter. Topsoil shall be well drained in its original condition and free of toxic quantities of acid or alkaline elements. It shall contain sand and clay in approximately equal proportions, and shall have an organic content by weight of not less than 2% nor more than 20% as determined by laboratory tests. The pH shall be between 6 and 7.

Water Shall be furnished by the Contractor for the execution of all work specified in this contract. The Contractor shall verify that the water available is suitable for irrigation and free from ingredients harmful to

Peat Shall be only moss (sphagnum) peat; brown acid reaction approximately 4 to 5 pH; of standard commercial quality delivered to the site in bags or other convenient containers, in air dry condition. Peat shall be fully warranted by the producer.

Brace Stakes: Wood brace stakes shall be common lumber or the sizes in the following table:

Tree Size Brace Stakes 2"x2"x96" 1"-12" or < 8' tall 2"x2"x24",2"x2"x30" for conifers

Wire shall be good commercial quality of galvanized wire. Wire used to stake trees shall be No. 11 gauge minimum.

Hose Collars: Hose collars shall be new two ply fabric bearing garden hose not less than 2 inch inside

PLANT MATERIAL STANDARDS

Association of Nurserymen, Inc., as published in the "American Standard for Nursery Stocks", latest edition. No substitutions of size or grade shall be permitted without written permission from the Landscape Designer. Each bundle of plants and all separate plants shall be properly identified with the legible waterproof tags securely fastened to each plant or bundle of plants. They shall remain on the plants until

Health All plants including their roots shall be free from disease, insects, or other injurious qualities. All local, state, and federal laws pertaining to the inspection, sale, and shipment of plant materials shall be complied with. The trunk bark of all trees shall be sound, trees shall have no large wounds, and any small wounds shall have a satisfactory callus roll formed or forming over them. Plants shall show good annual growth. Buds shall be plump and well filled for the species. Evergreen foliage shall be of good intense

Quality: All plants shall be true to type; they shall have normal, well-developed branch systems, and a vigorous fibrous root system; they shall be sound, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All new plants shall be nursery grown.

Ball and Burlap: All balled and burlapped plants shall conform to the "American Standard for Nursery Stock", latest edition. All balls shall be of natural earth in which the plant has been growing. No manufactured or artificially produced or mudded-balls shall be accepted. Balls shall be firm and unbroken, and of large enough size to adequately enclose the plant's fibrous root system.

Plant List The list of plants furnished with the specifications is for the information of the Contractor. The height and caliper of trees, the height or spread of shrubs, the diameter of the balls of roots are the minimum dimensions required. Plants indicated "B&B" are to be dug with a ball of earth and wrapped in

Measurements: Shall conform to those specified on the plant list except as follows: Oversize plants may be used only after approval by the designer.

Use of such plants shall not increase the contract price.

Height and spread dimensions indicated refer to the main body of the plant and not from branch tip to branch tip. All trees and shrubs shall be measured when their branches are in normal position. Trees shall have straight trunks with the leader intact, undamaged and uncut.

Inspection The Planting Contractor shall be responsible for all inspection and approval of the plant material that may be required by state, federal and other authorities, and he shall secure any permits and certificates that may be required.

All plants shall be subject to inspection, and approval at place of growth before digging, or upon delivery, for quality, size and variety; such approval shall not impair the right of rejection at the project site during progress of the work, for size, condition of balls, roots, latent defects or injuries. Rejected plants shall be removed immediately from the project site

DIGGING AND HANDLING

Protection from extremes in exposure and rough handling shall be provided all plant materials during

All plant materials shall be assembled in one location on the job site to permit inspection and approval by the designer. The Contractor shall notify the designer five (5) working days prior to planting so that a mutually agreeable time may be arranged for inspection. Stock with broken root balls or loose containers, and stock which shows evidence of being root-bound, over-grown, or recently canned, or in the opinion of the designer is damaged or improperly cared for, shall be removed from the site immediately and replaced at the Contractor's expense with another plant meeting the original specifications. Plants shall not be pruned prior to approval by the designer.

PROCEDURE : Tree Planting

Layout All trees shall be located as designated in the field by the planting plan. Where below ground or overhead obstructions are encountered, the trees shall be relocated by the designer.

Planting Pits: Shall be a diameter two (2) feet greater than the diameter of the ball of the tree. The depth of the pit shall be enough to accommodate the ball or roots of the tree when the tree is set to finish grade, allowing for six inches of compacted topsoil below the roots of the plant. Prior to installing the 6" of topsoil to the pit, 3" of existing soil shall be mixed with the topsoil at a 1:1 ratio to reduce puddling beneath plantings. Planting islands within the parking lot shall be brought to final grade with 6" of planting soil.

Planting Soil Preparation: Mix then one part peat moss with five parts topsoil. Mix all components thoroughly before backfilling.

Setting of Trees: Before setting the trees, pits shall be backfilled with topsoil to a depth of 6", thoroughly tamped and watered. All plants shall be placed at such a level that, after settlement, the natural relationship between the original grade at which the plant grew, the ball shall be 1/8higher than the finish grading. Trees shall be planted plumb, oriented for desired effect as directed by the designer. Topsoil shall be tamped under and around the base of each ball to fill all voids and shall be placed in 6 to 8 inch layers, each thoroughly tamped and puddled. Burlap shall be removed from the sides and top of balls and from under the balls. When planting bare root trees, care shall be taken to work topsoil in around the roots and to spread them in a natural position before backfilling. Shallow basin or saucers a little larger than the diameter of the ball shall be formed around all trees to hold additional water.

Mulch Shall be applied to all tree pits to a depth of 2-3".

Pruning: All trees shall be neatly pruned after planting in accordance with the best standard practices and as directed by the designer. The tree shall be pruned to preserve its natural form and character and in a manner appropriate to its particular requirements. In general, at least one third of the deciduous trees shall be removed by thinning or shortening of branches but no leaders shall be cut. All pruning shall be done with clean, sharp tools.

Shrub and Herbaceous Materials: (groundcover)

Layout Herbaceous planting beds and shrub pit locations shall be designated by the designer in accordance with the plant list and the tentative locations shown on the planting plan. The general

form of the planting bed shall be staked out and excavations performed within the stakes.

Preparation of Herbaceous Planting Beds The ground shall be thoroughly broken to a depth of 12 inches. The top 4 inches shall be worked by the contractor until the soil is completely fined and in a mellow condition to finish grade. All organic material shall either be worked into the soil or removed from the site. Clumps shall be removed from the site. All shall be performed perpendicular to the direction of

Shrub Planting Pits: Shall have vertical sides. The diameter of the pits shall be two times greater than the diameter of the ball of the shrub. The depth of the pit shall be enough to accommodate the ball or roots of the shrub when the shrub is set to finish grade compacted allowing for six inches topsoil below the roots of the plant. Prior to installing the 6" of topsoil to the pit, 3" of existing soil shall be mixed with the topsoil at a 1:1 ratio to reduce puddling beneath plantings.

Shrub Planting Soil: Mix one part peat moss with five parts topsoil. Mix all components thoroughly

surface drainage. All holes, depressions and rivulets shall be filled and brought to a smooth grade.

Setting of Shrubs: All materials shall be planted 2" higher in relation to the finish grade as they had before finish grade. Balled and burlapped plants shall have topsoil tamped under the balls. All burlap, ropes, staves, etc., shall be taken off the tops of the balls and removed from the ball before backfilling. Roots of bare root plants shall not be left matted together, but shall be arranged in natural positions and shall have topsoil worked in among them. All broken and frayed roots shall be properly removed by trimming.

The Backfill of TopsShall be tamped in successive 8" layers. When the hole has been 2/3 backfilled, water shall be poured in filling the hole, and allowed to soak away so that all voids or air pockets under or around the roots are eliminated. After the water has soaked away, the hole shall be completely backfilled with "topsoil". After the backfill settles, additional soil shall be filled in, to the level of the finish grade. A shallow saucer of soil shall be formed around the edge of each hole to hold additional water.

Pruning: All shrubs shall be neatly pruned or thinned immediately after planting in accordance with best standard practices and as directed by the designer. Broken or bruised branches shall be removed with a clean cut. Each shrub shall be pruned to preserve its natural form or character and in a manner appropriate to its particular requirements. All pruning and thinning shall be done with sharp, clean tools.

Mulch: Shall be applied to all shrub beds and pits to a depth of 3" and to all herbaceous planting beds to a depth of 2" & evenly around the sides of the tree, outside of the ball. All stakes shall be oriented to a line parallel with the normal prevailing winds, or as directed by the designer. See planting details for staking locations.

TEMPORARY STORAGE AND HEELING-IN:

No heel—in plant material will be accepted, nor will any temporary heeling—in storage be permitted. Plant material unloaded and accepted by the inspector shall be immediately transported to the planting site and planted. Material left out of ground overnight or left with its roots bare to the sun, or otherwise unprotected during transit, unloading or storage shall be rejected by the designer, if in his judgment such lack of protection has caused damage to the roots of the plant or in any other way injured the plant material.

MAINTENANCE:

INSPECTION AND ACCEPTANCE

The planting contractor shall be required to make periodic checks on the total project to make certain that the materials are properly cared for and that the sum of all conditions are contributing to the satisfactory progress of the materials, until such time as the work is approved by the designer.

Inspection of this work will be made by the designer at the conclusion of the planting period upon written notice by the Contractor at least five (5) days prior to anticipated date. Condition of all plant materials will be noted and

After inspection, the planting contractor will be notified in writing by the designer if there are any deficiencies of the requirements for acceptance of the work. GUARANTEE AND REPLACEMENT:

Trees and shrubs shall be guaranteed for a maximum of one full year of growing seasons after installation and shall be alive and in satisfactory condition at the end of the guarantee period. Such guarantee excludes vandalism.

DEFINITION FOR FURNISHED AND INSTALLING PLANT MATERIAL

The unit price contained in the bid proposal for furnished and installing plant and shrub material shall be defined to include furnishing and installing material, all planting soils (if applicable), staking and a guarantee for two years or growing seasons (excluding vandalism).

PUBLIC UTILITIES:

- 1. Care shall be exercised in excavation near utilities. If at any time Contractor damages the utilities in place through negligence or carelessness, Contractor shall pay for the full cost of repairing such damages. Contractor shall notify the appropriate person in the office of any utility whose lines may be affected.
- 2. The locations of utilities shown on the plans are approximates only and do not necessarily indicate all the utilities that may be encountered during construction. The failure of a utility to be shown on the plans does not relieve Contractor of the responsibility for any injuries he may inflict on the utility, and in case of injury, it
- 3. Whenever other utilities are encountered whose present grade would conflict with the new construction, Contractor shall notify landscape architect, who shall arrange revisions without unreasonable delay. Trenching or tunneling under existing utilities, culverts, etc., and providing temporary support shall be done at no additional expense to Owner.

shall be repaired at the expense of the Contractor.

GUARANTEE AND REPLACEMENT: The Contractor will guarantee survival of plants (each species) after one year. If at this time the total number of plants has fallen below this threshold, the Contractor will make a one—time replacement to bring plant numbers to the 100% levels for each species. Care shall be taken such that the activities involved in replacement planting do not cause damage or detrimental effect to the surviving flora. Any plants damaged by these activities will also be replaced by the Contractor to the 100% threshold.

Trees, shrubs and ground covers shall be guaranteed for 1 year after installation and shall be alive and in satisfactory condition at the end of the guarantee period. Such guarantee excludes vandalism.

DEFINITION FOR FURNISHED AND INSTALLING PLANT MATERIAL: The unit price contained in the bid proposal for furnished and installing plant and shrub material shall be defined to include furnishing and installing material, all planting soils (if applicable), staking and a guarantee for 18 months (excluding vandalism).

PROTECTION OF PRIVATE PROPERTY: Contractor shall repair or replace all fences, concrete walls, concrete curbs, gravel and asphalt driveways, signs, culverts, and all other miscellaneous improvements, at no additional expense to owner, damaged by Contractor due to his operations on the project, to a condition equal to or better than their condition before construction. JOB CONDITIONS:

- 1. Examine and evaluate grades, soils and water levels, observe the conditions under which work is to be performed, and notify the Landscape Architect of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in an
- acceptable manner. 2. Utilities: Review underground utilities location maps and plans provided by owner; demonstrate an awareness of utility locations, and certify acceptance of liability for the protection of utilities during course of work. Contractor shall be responsible for any damage to utilities or property.

COMMON NAME

EASTERN REDBUD

SWAMP WHITE OAK

SCARLET OAK

WILLOW OAK

BLACKGUM

FRUITLESS SWEET GUM

AMERICAN SYCAMORE

AMERICAN HORNBEAM

SIZE

7'-8'

3" CAL

3" CAL B&B

3" CAL B&B

3" CAL B&B

3" CAL B&B

3" CAL B&B

3" CAL B&B

SOD

SOD

FORM

B&B

SPACING

SHOWN

NWOH

SHOWN

NWOH

SHOWN

SHOWN

SHOWN

SHOWN

SQUARE YARD

QUANTITY

COMMENTS

STABILIZATION

Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

SITE LANDSCAPE PLANT SCHEDULE

LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'

KEY BOTANICAL NAME

QB QUERCUS BICOLOR

QC QUERCUS COCCINEA

QP QUERCUS PHELLOS

NS

CERCIS CANADENSIS

PLATANUS OCCIDENTALIS

CARPINUS CAROLINIANA

SOD | SOD - TALL FESCUE/KENTUCKY BLUGRASS

*QUANTITY TO BE DETERMINED AT FINAL LANDSCAPE DESIGN

- TREES AND SHRUBS TO BE PLANTED OUTSIDE OF L.O.D.

- THE SIZE OF PLANTING PITS ARE TO BE MINIMIZED WHEN

MACHINERY IS TO GO OUTSIDE OF L.O.D. PLANTS ARE TO

PLANTED WITHIN THE CRZ OF EXISTING TREES TO BE SAVED.

THE LOCATIONS OF PLANTING PITS ARE TO BE SHIFTED IF

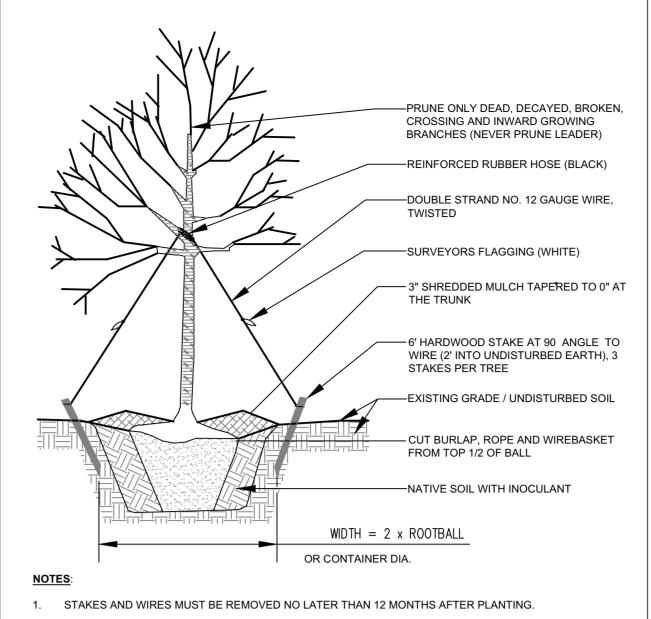
ARE TO BE DUG WITH HAND EQUIPMENT ONLY. NO

ROOTS ARE ENCOUNTERED DURING INSTALLATION.

BE INSTALLED AND STABILIZED SAME DAY.

NYSSA SYLVATICA

SEED MIXES

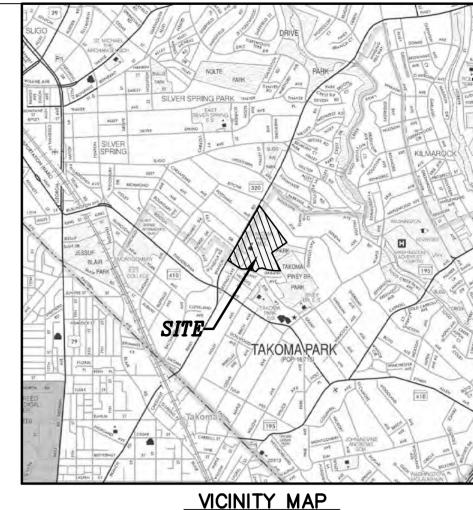


- 2. PLANTING HOLE SHALL BE DUG BY A BACKHOE OR OTHER MACHINE AND FINISHED BY HAND.
- 3. IF SURROUNDING SOIL IS COMPACTED AS DETERMINED BY M-NCPPC PLANNING DEPT INSPECTOR OR PARKS DEPT FOREST ECOLOGIST, AN AREA UP TO 5 TIMES THE DIA. OF THE ROOT MASS SHALL BE EXCAVATED OR ROTOTILLED TO A 1' DEPTH AND THE SOIL SHALL BE AMENDED.
- DO NOT DAMAGE OR CUT LEADER. 5. ROOT FLAIR EVEN WITH LEVEL OF UNDISTURBED GROUND.

lontgomery County Department of Parks

DECIDUOUS PLANTS - (2" Caliper or Larger) The Maryland-National Capital Park and Planning Commission

Detail No



SCALE: $1" = 2,000' \pm$ (WSSC GRID: 209 NW 01) MONTGOMERY COUNTY ADC MAP PAGE: 5408 GRIDS: H & J - 3(2008/39TH EDITION)

MECH./ELECTRICAL/PLUMBING **JAMES POSEY ASSOCIATES** 3112 LORD BALTIMORE DRIVE 301-265-6100(P) 301-298-9820(F)

ARCHITEC1

9211 CORPORATE BLVD, SUITE 340

ROCKVILLE, MD 20850 301-770-0177(P) 301-330-3224(F)

CIVIL

ADTEK ENGINEERS

97 MONOCACY BOULEVARD, UNIT H

FREDERICK, MD 21701

301-662-4408(P) 301-662-7484(F)

STRUCTURAL

ADTEK ENGINEERS

97 MONOCACY BOULEVARD, UNIT H

FREDERICK, MD 21701

301-662-4408(P) 301-662-7484(F)

BALTIMORE, MD 21244

CONSTRUCTION MANAGER



TAKOMA PARK MIDDLE SCHOOL **ADDITION**

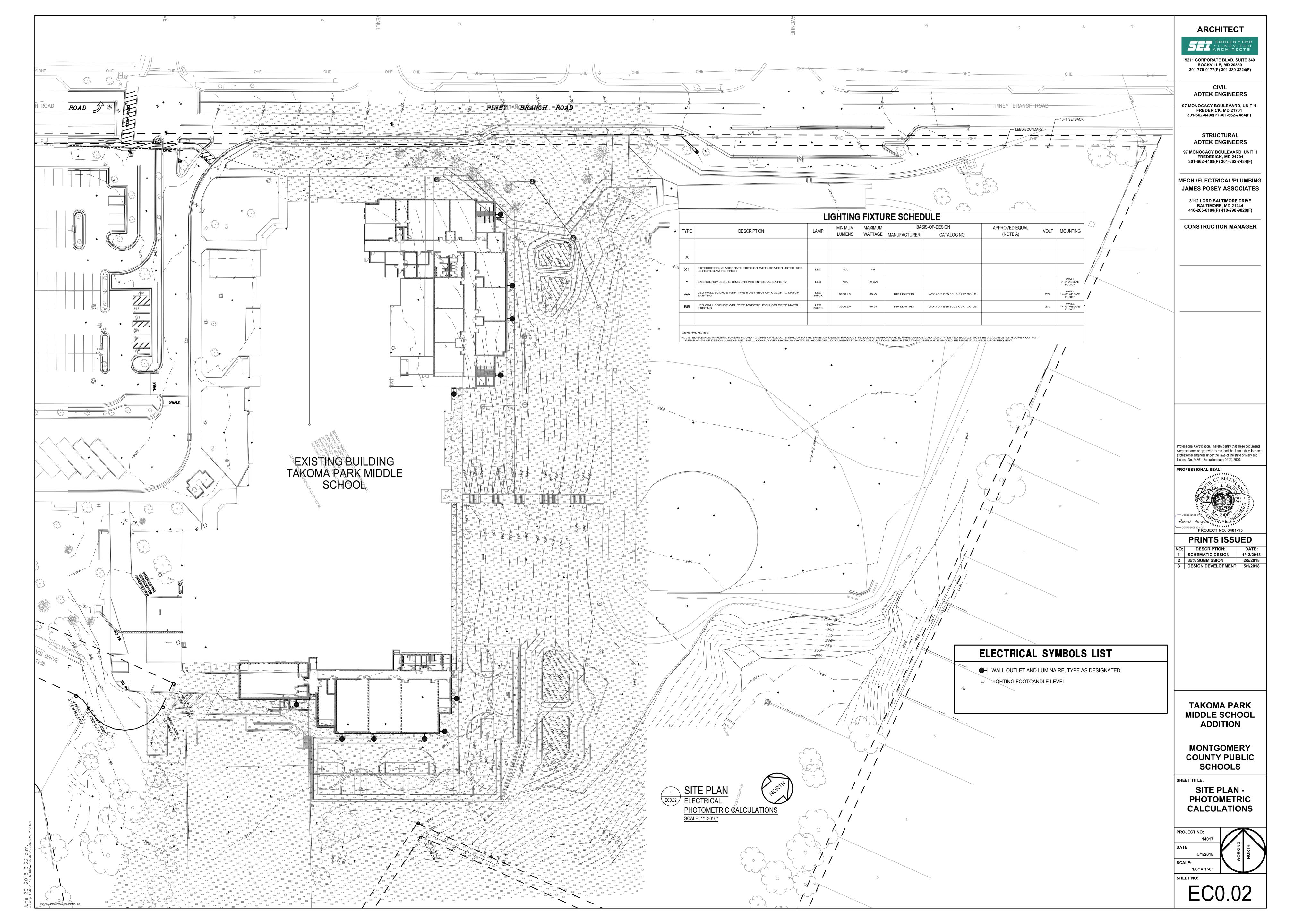
MONTGOMERY **COUNTY PUBLIC** SCHOOLS

SHEET TITLE: **PRELIMINARY** LANDSCAPE PLAN

LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING				
5146 DORSEY HALL DRIVE, 2ND FLOOR		ELLICOTT CITY, MD 21042		
BALT.443.542.9199 DC 240.342.2329 WWW.NORTONLANDDESIGN.COM				
WATER CLASS USE I,P	WATERSHED	FEMA FLOODPLAIN MAP PANEL #		
TRIBUTARY UNNAMED	SLIGO CREEK	24031C 0460D		
TAX MAP JN342	²⁰⁰ SHEET 209NW01	ADC MAP PAGE 37 GRID C-11		
SCALE AS SHOWN DATE AUGU	PROJ. NO. 16-14	SHEET NO. L-2.4		

NORTON LAND DESIGN

PROJECT NO: 16-140 6/06/2018 SCALE: 1" = 30'-0" SHEET NO:





DEPARTMENT OF TRANSPORTATION

Isiah Leggett County Executive

Al R. Roshdieh Director

April 16, 2018

Ms. Katie Mencarini, Planner Area 1 Planning Division The Maryland-National Capital Park & Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910-3760

RE:

Takoma Park Middle School

Mandatory Referral

Traffic Impact Study Review

Dear Ms. Mencarini:

We have completed our review of the Local Area Transportation Review and Transportation Policy Area Review (TIS) report dated March 13, 2018, and prepared by Street Traffic Studies, Ltd. Total development evaluated by the analysis includes:

the expansion of the middle school with a core capacity of 1,500 students (additional 402 students).

We offer the following comments:

General Comment:

- Page 1-Introduction-Second Paragraph: The report states that the traffic study was prepared in accordance with the Local Area Transportation Review and transportation Policy Area Review (LATR) Guidelines for a site generating more than 30 peak hour trips. As per the new LATR guidelines, a traffic study is required for a site generating more than 50 peak hour person trips by the proposed development.
- 2. We defer to the Maryland State Highway Administration (MDSHA) and City of Takoma Park for comments regarding intersections maintained by MDSHA and City of Takoma Park jurisdictions.

Ms. Mencarini Takoma Park Middle School Mandatory Referral April 16, 2018 Page 2

Adequacy Determination

- 1. The study (page 15) indicates that the subject development will generate at least 50 total weekday peak hour person trips; therefore, the Motor Vehicle Adequacy test is required.
- 2. The study (page 20) indicates that the proposed development generates fewer than 50 pedestrian, transit and bicycle trips; therefore, these adequacy tests are not required.

Motor Vehicle System Adequacy

The subject development is required to meet the Local Area Transportation Review (LATR) test
for motor vehicle system adequacy. The LATR test for the Silver Spring/Takoma Park policy area
retains the critical lane volume (CLV) with a congestion standard of 1600. In addition, if the CLV
is more than 1350, then the new Subdivision Staging Policy (SSP) requires an analysis of the
average delay using Highway Capacity Manual (HCM).

Even though the CLV analyses for the total peak hour volumes were less than 1350, the consultant also included the HCM analysis for average delay standard (seconds/vehicle) in the report which was less than the congestion standard of 80 seconds/vehicle for the Silver Spring/Takoma Park policy area.

The consultant studied six (6) intersections during the school's peak period hours (7:30 to 8:30 p.m. and 3:00 to 4:00 p.m.). The consultant concluded that the total future conditions for these intersections will not exceed the congestion standard for the Silver Spring/Takoma Park policy area.

Pedestrian and Bicycle Impact Statement

- 1. The study indicates that the proposed development generates fewer than 50 pedestrian, transit and bicycle trips; therefore, these adequacy tests are not required.
- 2. We recommend crosswalks be installed on Gist Avenue, Potomac Avenue and Mississippi Avenue at the intersection of these side streets with Piney Branch Road (MD 320).

Ms. Mencarini Takoma Park Middle School Mandatory Referral April 16, 2018 Page 3

SUMMARY

- 1. We concur with the consultant's conclusion that the motor vehicle delay will not exceed the Potomac policy area threshold.
- 2. We concur with the consultant that the pedestrian, transit and bicycle adequacy tests are not required.

Thank you for the opportunity to review this report. If you have any questions or comments regarding this letter, please contact myself for this project, at deepak.somarajan@montgomerycountymd.gov or (240) 777-7170.

Sincerely,

Rebecca Torma, Acting Manager Development Review Team Office of Transportation Policy

SharePoint/transportation/directors office/development review/Deepak/TIS/ Takoma Park Middle School / Takoma Park Middle / Takoma Park Middle / Takoma Park Middle / Takoma Park Middle / Takoma Park Middle / Takoma Park Middle / Takoma / Takoma Park Middle / Takoma / Takom

cc:

David A. Nelson

Street Traffic Studies, Ltd.

Mike Nalepa

Street Traffic Studies, Ltd.

Preliminary Plan letters notebook

cce:

Andre Futrell

MDSHA-District 3