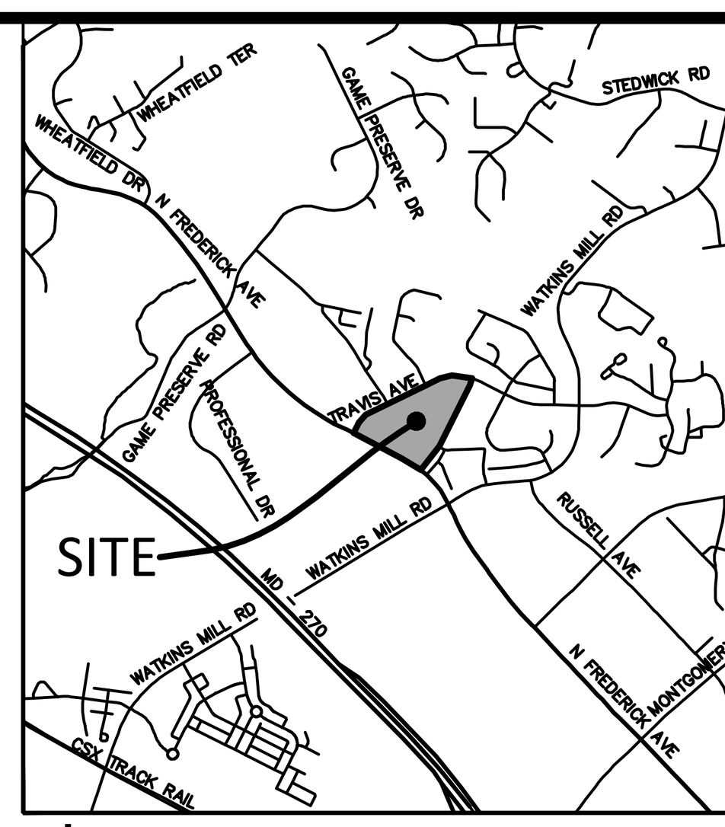
TRAVIS AVENUE

PRELIMINARY FOREST CONSERVATION PLAN



VICINITY MAP
SCALE: 1" = 2000'

VIKA
ENGINEERS PLANNERS
LANDSCAPE ARCHITECTS SURVEYORS
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD SUITE #400
GERMANTOWN, MARYLAND 20874
PHONE: 301.916.4100
FAX: 301.916.2262
GERMANTOWN, MD TYSONS, VA

PREPARED FOR:
KIMCO REALTY
1954 GREENSPRING DRIVE
SUITE 330
TIMONIUM, MD 21093
410-427-4428
CONTACT: GREGORY H. REED

DESIGN CONSULTANTS

PLANNER, CIVIL ENGINEER
VIKA MARYLAND, LLC
20251 CENTURY BOULEVARD
SUITE 400
GERMANTOWN MD, 20874
301.916.4100
CONTACT: DOUGLAS KOESER, RLA, ISA

GENERAL NOTES

1. THE TOTAL TRACT AREA OF SUBJECT PROPERTY IS 8.77 ACRES, ON WHICH THE FOREST CONSERVATION REQUIREMENTS FOR THE PRELIMINARY FOREST CONSERVATION PLAN IS BASED.
2. THE SUBJECT PROPERTY IS LOCATED ON WSSC MAPS 225NW10 & 225NW11.
3. THE SUBJECT PROPERTY IS LOCATED ON TAX MAP FT33.
4. THE SUBJECT PROPERTY COMPRISES THE FOLLOWING:

LOT/PARCEL	BLOCK	TAX ACCT NO.	LIBER & FOLIO	PLAT NO.
--	-	09-02835786	L. 17855, F. 0442	-

5. THE SUBJECT PROPERTY IS ZONED: C-2.
6. THE HORIZONTAL DATA IS BASED ON MARYLAND STATE PLANE (NAD83/91).
7. THE TOPOGRAPHIC INFORMATION SHOWN WITHIN THE PROPERTY BOUNDARY IS A COMPILATION OF DATA COLLECTED WITH CONVENTIONAL SURVEYING EQUIPMENT, SD LASER SCANNER, AND A DRONE BY VIKA MARYLAND LLC IN FEBRUARY OF 2019. MONTGOMERY COUNTY GIS TOPOGRAPHY IS SHOWN FOR OFFSITE AREAS WITHIN THE NRI/FSD STUDY AREA AND FIELD OBSERVED IN APRIL OF 2019 TO BE REPRESENTATIVE OF EXISTING CONDITIONS.
8. NRI/FSD ENV-8797-2021 WAS APPROVED ON FEBRUARY 2, 2021.
9. THE SUBJECT PROPERTY DRAINS TO MIDDLE GREAT SENECA CREEK, A USE CLASS I-P STREAM. NO WETLANDS OR STREAMS ARE LOCATED ON-SITE OR WITHIN THE STUDY BOUNDARY. THE NEAREST STREAM IS LOCATED +/- 630 FEET TO THE SOUTH.
10. SLOPES 25% OR GREATER ON THE SITE OR WITHIN THE 100' NRI STUDY BOUNDARY ARE SHOWN ON THE PLAN.
11. THIS SITE IS NOT LOCATED WITHIN A SPECIAL PROTECTION AREA (SPA) OR PRIMARY MANAGEMENT AREA (PMA).
12. THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" (AREA OF LESS THAN 0.2% ANNUAL CHANCE OF FLOOD) AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 24031C0186D, FOR MONTGOMERY COUNTY, MARYLAND, DATED SEPTEMBER 29, 2006.
13. THERE IS NO FORESTED AREA ON-SITE.
14. ALL TREES >24” DBH WITHIN THE LOD ARE PROPOSED TO BE REMOVED ALTHOUGH NOT MARKED WITH AN “X” ON THE PFCP SHEETS.
15. A VARIANCE REQUEST FOR SPECIMEN TREES IMPACTS WILL BE PROVIDED WITH THE FINAL FOREST CONSERVATION PLAN.
16. AFFORESTATION PLANTING MATERIALS AND FOREST CONSERVATION DETAILS WILL BE SPECIFIED ON THE FINAL FOREST CONSERVATION PLAN.

PFCP WORKSHEET

NET TRACT AREA:						
A. Total tract area ...						8.77
B. Additions to tract area (Off-Site Work, etc.; construction required by this plan)						0.00
C. Land dedication acres (parks, county facility, etc.) ...						0.00
D. Land dedication for roads or utilities (construction not required by this plan) ..						0.00
E. Area to remain in commercial agricultural production/use ...						0.00
F. Other deductions (offsite utility connections)						0.00
G. Net Tract Area ....=						8.77
LAND USE CATEGORY: (from Chapter 22A-3. Definitions)						
Input the number "1" under the appropriate land use, limit to only one entry.						
ARA	MDR	IDA	HDR	MDP	CIA	
0	0	0	0	1	0	
G. Afforestation Threshold ...				15%	x G =	1.32
H. Conservation Threshold ...				20%	x G =	1.75
EXISTING FOREST COVER:						
I. Existing forest cover ....=						0.00
J. Area of forest above afforestation threshold ....=						0.00
K. Area of forest above conservation threshold ....=						0.00
BREAK EVEN POINT:						
L. Forest retention above threshold with no mitigation ....=						0.00
M. Clearing permitted without mitigation ....=						0.00
PROPOSED FOREST CLEARING:						
N. Total area of forest to be cleared ....=						0.00
O. Total area of forest to be retained ....=						0.00
PLANTING REQUIREMENTS:						
P. Reforestation for clearing above conservation threshold ....=						0.00
Q. Reforestation for clearing below conservation threshold ....=						0.00
R. Credit for retention above conservation threshold ....=						0.00
S. Total reforestation required ....=						0.00
T. Total afforestation required ....=						1.32
U. Credit for landscaping (may not exceed 20% of "S") ....=						0.00
V. Total reforestation and afforestation required ....=						**1.32**

AFFORESTATION/ REFORESTATION CREDIT TABLE

PROPOSED AFFORESTATION/REFORESTATION CREDIT TABLE (IN ACRES)

FOREST PLANTING AREA (CATEGORY I EASEMENT)	0.00
FOREST PLANTING AREA (CATEGORY II EASEMENT)	0.00
TREE CANOPY CREDIT	1.32
FEE-IN-LIEU	0.00
TOTAL CREDITS	**1.32**
REMAINING REQUIREMENT (OR EXCESS PLANTING IF NUMBER IS NEGATIVE)	**0.00**

* FEE-IN-LIEU MAY STILL BE USED ON A PORTION OF THE REQUIRED AFFORESTATION BASED ON THE FINAL FOREST CONSERVATION PLAN.

TREE CANOPY CREDIT SUMMARY

TREE TYPE	CALIPER/HT.	CREDIT PER TREE (SF)	QTY.	TOTAL CREDIT (SF)	TOAL CREDIT (AC)
LARGE SHADE TREES	2- 2.5"	1,000	40	40,000	**0.92**
MEDIUM SHADE/ LARGE EVERGREEN	2- 2.5" / 8-10'	700	18	12,600	**0.29**
ORNAMENTAL/SMALL EVERGREEN	8'-10'	300	18	5,400	**0.12**
			TOTAL CANOPY COVERAGE CREDIT	**58,000**	**1.33**

* MIX OF TREE TYPE AND TOTAL TREE CANOPY CREDIT APPLIED TO BE ADJUSTED AT TIME OF FINAL FOREST CONSERVATION PLAN.

PFCP RESOURCE DATA TABLE

Forest Conservation Data Table

	Number of Acres		
Tract	8.77		
Remaining in Agricultural Use	-		
Road & Utility ROWs[1]	-		
Total Existing Forest	-		
Forest Retention	-		
Forest Cleared	-		
Land Use & Thresholds[2]			
Land Use Category	MDP	ARA, MDR, IDA, HDR, MDP, or CIA.	
Conservation Threshold	20%	percent	
Afforestation Threshold	15%	percent	
	Total Channel Length (ft.)	**Average Buffer Width** (ft.)[3]	
Stream(s)	-	-	
Acres of Forest in	**Retained**	**Cleared**	**Planted**
Wetlands	-	-	-
100-Year Floodplain	-	-	-
Stream Buffers	-	-	-
Priority Areas	-	-	-

[1] Only Road or Utility ROWs not to be improved as part of development application.
[2] Information from FC Land Use Categories & Thresholds document.
[3] Measured from stream edge to buffer edge.

SOILS TABLE

SYMBOL	SOIL*	CHARACTERISTICS				
		PRIME AGRICULTURE**	HIGHLY ERODIBLE***	SERPENTINIC****	HYDRIC GROUP*	K FACTOR*****
1C	GAILA SILT LOAM 8-15% SLOPES	NO	NO	NO	B	0.37
2B	GLENELG SILT LOAM 3-8% SLOPES	YES**	NO	NO	B	0.32
16D	BRINKLOW-BROCKTOWN CHANNERY SILT LOAM 15-25% SLOPES	NO	YES	NO	B	0.28
66UB	WHEATON-URBAN LAND COMPLEX 0-8% SLOPES	NO	NO	NO	B	0.49
66UC	WHEATON-URBAN LAND COMPLEX 8-15% SLOPES	NO	NO	NO	B	0.49

SOURCES: *USDA NRCS WEB SOIL SURVEY (http://websoilsurvey.sc.egov.usda.gov)
**PAGE 140 TABLE 5 MONTGOMERY COUNTY, MARYLAND SOIL SURVEY
**URBAN OR BUILT-UP AREAS OF THE PRIME AGRICULTURAL SOILS ARE NOT CONSIDERED PRIME FARMLAND PER THE THE MONTGOMERY COUNTY, MARYLAND SOIL SURVEY PAGE 140 TABLE 5
*** PAGE 67 APPENDIX C ERODIBLE SOILS LIST M-NCPPC MONTGOMERY COUNTY ENVIRONMENTAL GUIDELINES
****PAGE 120 MONTGOMERY COUNTY, MARYLAND SOIL SURVEY
*****TABLE 16 PAGE 212 MONTGOMERY COUNTY, MARYLAND SOIL SURVEY

SIGNIFICANT & SPECIMEN TREE TABLE

TREE NO.	BOTANICAL NAME	COMMON NAME	D.B.H. (in.)*	VARIANCE TREE	CONDITION	CRZ (SF)	CRZ IMPACT (SF)	CRZ IMPACT %	DISPOSITION	NOTES
On-Site Trees										
9	**Quercus rubra**	**Northern red oak**	**30**	✓	**Good**	**6,362**	**1,525**	**23.97**	**SAVE**	**Reduce LOD at time of FFCP is possible.**
10	Quercus rubra	Northern red oak	26		Good	4,778	2,270	47.51	SAVE	Disturbance primarily due to removal of pavement and minor grading. Reduce LOD at time of FFCP if possible.
Off-Site Trees										
63	**Quercus rubra**	**Northern red oak**	**32**	✓	**Good**	**7,238**	**68**	**0.94**	**SAVE**	**Reduce LOD at time of FFCP is possible.**
65	Pinus strobus	Eastern White Pine	26		Good	4,778	1,600	33.48	SAVE	Disturbance primarily due to removal of pavement and minor grading.
67	Quercus rubra	Northern red oak	27		Good	5,153	577	11.20	SAVE	Reduce LOD at time of FFCP is possible.
2065	Quercus rubra	Northern red oak	29		Good	5,945	740	12.45	SAVE	Reduce LOD at time of FFCP is possible.
2087	Quercus rubra	Northern red oak	26		Good	4,778	88	1.84	SAVE	Reduce LOD at time of FFCP is possible.
2088	Quercus rubra	Northern red oak	25		Good	4,418	404	9.14	SAVE	Reduce LOD at time of FFCP is possible.
2109	Quercus rubra	Northern red oak	24		Good	4,072	17	0.42	SAVE	Reduce LOD at time of FFCP is possible.
2137	Quercus rubra	Northern red oak	27		Good	5,153	285	5.53	SAVE	Reduce LOD at time of FFCP is possible.
2148	Acer negundo	Boxelder	24		Good	4,072	1,446	35.52	REMOVE	Coordinate with adjacent property owner for removal.
2149	**Quercus rubra**	**Northern red oak**	**32**	✓	**Good**	**7,238**	**828**	**11.44**	**SAVE**	**Reduce LOD at time of FFCP is possible.**

*DIAMETER AT BREAST HEIGHT

REVISIONS	DATE

PROFESSIONAL SEAL

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED, REGISTERED LANDSCAPE ARCHITECT AND CERTIFIED ARBORIST UNDER THE LAWS OF THE STATE OF MARYLAND.
NAME: DOUGLAS KOESER, RLA, ISA
ASLA LICENSE NUMBER: 3861 EXP. DATE: JANUARY 24, 2022
ISA LICENSE NUMBER MA-4521A EXP. DATE: DECEMBER 27, 2021

TRAVIS AVENUE

9TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 225NW10 AND 225NW11
TAX MAP: FT33

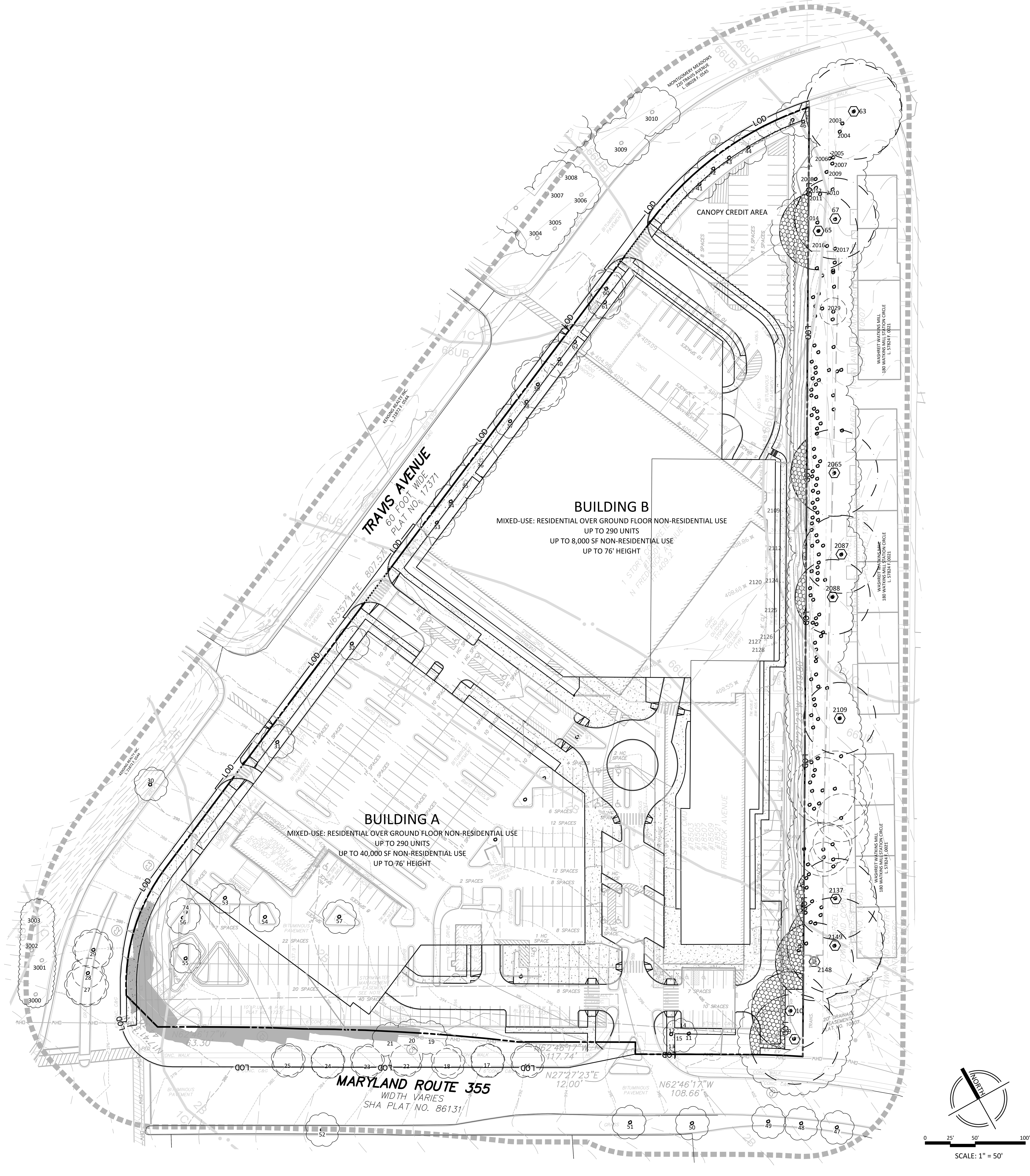
PRELIMINARY FCP COVER

SHEET INDEX

DRAWN BY: SG-DLK
DESIGNED BY: DLK
DATE ISSUED: 6/17/2021
VIKA PROJECT: VM50421A
AGENCY NO.:
SHEET NO. PFCP-1

TRAVIS AVENUE

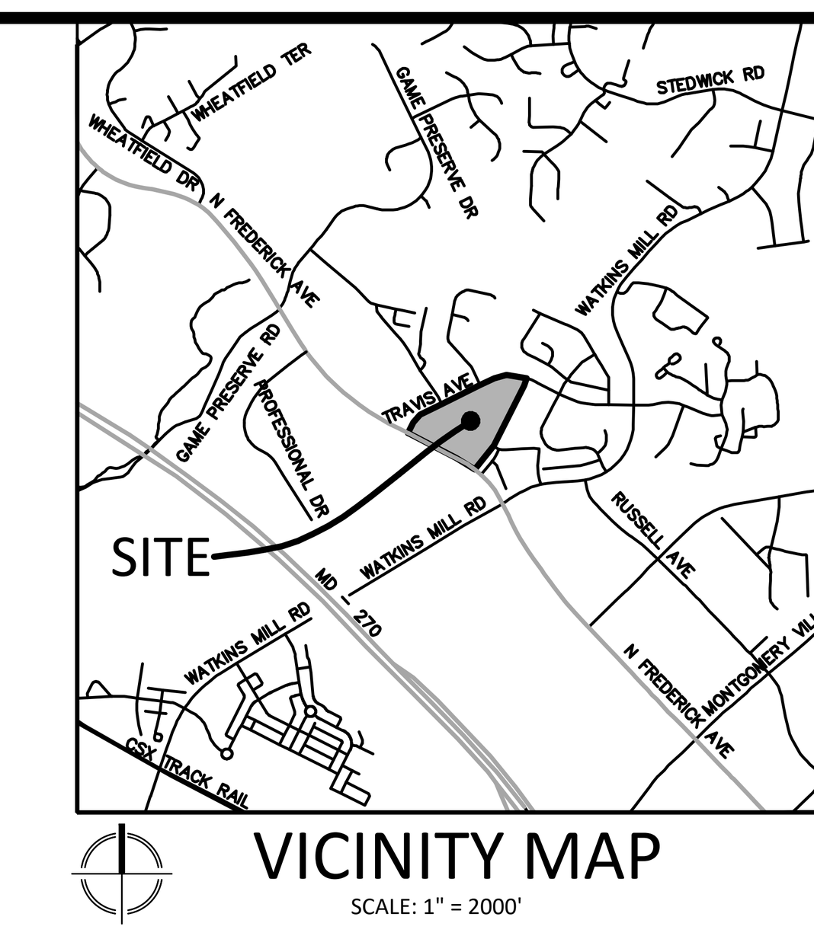
PRELIMINARY FOREST CONSERVATION PLAN



LEGEND

- SUBJECT PROPERTY
- ADJACENT PROPERTY/LOT LINES
- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- LIMITS OF DISTURBANCE
- PROPOSED SIDEWALK
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED STORM DRAIN
- SLOPES ≥ 25%
- EXISTING TREE CANOPY (NOT FOREST)
- EXISTING TREE < 24"DBH
- EXISTING SPECIMEN TREE TO BE REMOVED. IF A SPECIMEN TREE GREATER OR EQUAL TO 30" DBH THEN A VARIANCE REQUEST TO REMOVE THE TREE HAS BEEN SUBMITTED WITH THIS PLAN.
- EXISTING SIGNIFICANT TREE 24-29.9" DBH W/CRZ SHOWN
- EXISTING SPECIMEN TREE 30" OR GREATER DBH W/CRZ SHOWN
- EXISTING SPECIMEN TREE W/CRZ IMPACT SHOWN FOR WHICH A TREE VARIANCE REQUEST TO IMPACT OR REMOVE THE TREE HAS BEEN SUBMITTED
- SOILS BOUNDARY LINE
- EX. CABLE TV CONDUIT
- EX. ELECTRICAL CONDUIT
- EX. EDGE OF PAVEMENT
- EX. FENCE LINE
- EX. NATURAL GAS CONDUIT
- EX. OVERHEAD WIRES
- EX. FIBEROPTIC CONDUIT
- EX. TELEPHONE/COMM. CONDUIT
- EX. PUBLIC UTILITIES EASEMENTS
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. SANITARY CLEANOUT
- EX. STORM DRAIN MANHOLE
- EX. ELECTRICAL JUNCTION BOX
- EX. ELECTRICAL MANHOLE
- EX. FIRE DEPT. CONNECTION
- EX.FIRE HYDRANT
- EX. GAS MANHOLE
- EX. GUY POLE
- EX. GAS VALVE
- EX. LIGHT POLE
- EX. PHONE PEDESTAL
- EX. PHONE MANHOLE
- EX. UTILITY POLE
- EX. SANITARY MANHOLE
- EX. TRAFFIC CONTROL BOX
- EX. TRAFFIC SIGNAL POLE
- EX. CABLE TV PEDESTAL
- EX. UNKNOWN UTILITY MANHOLE
- EX. WATER METER
- EX. WATER VALVE
- EX. BOLLARD
- EX. SIGN POST
- EX. WOOD POST
- EX. INLETS
- EX. CURB INLET

EX.......... EXISTING
CONC...... EX. CONCRETE
C&G .... EX. CURB AND GUTTER
BLDG....... EX. BUILDING
STY. .... EX. STORY
TRV .... EX. ELEC. TRANSFORMER
ASPH. ..... EX. ASPHALT
ESMT. .... EX. EASEMENT
RCP ...... EX. REINFORCED CONC. PIPE
CMP ..... EX. CORRUGATED METAL PIPE
BRL .... EX. BLDG. RESTRICTION LINE
R/W........ EX. RIGHT-OF-WAY
FF. .... EX. FINISHED FLOOR ELEVATION



VICINITY MAP
SCALE: 1" = 2000'

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REVISIONS	DATE

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NAME: JAMES BUCHHEISTER
LICENSE NUMBER: 3272 EXP. DATE: NOVMBER 16, 2022

TRAVIS AVENUE

9TH ELECTION DISTRICT
MONTGOMERY COUNTY, MARYLAND
WSSC GRID: 225NW10 AND 225NW11
TAX MAP: FT33

PRELIMINARY FCP PLAN

DRAWN BY: SG-JB
DESIGNED BY: JB
DATE ISSUED: 11/19/2021
VIKA PROJECT: VM50421A
AGENCY NO.:
SHEET NO. PFCP-2

Z:\50000-50500\50421\CADD\PRELIMINARY\PLOT SHEETS\50421900_P_PRELIM FCP.dwg " November 19, 2021

LAYOUT: PFC PLAN, Plotted By: buchheister

S + ASSOCIATES

MEMORANDUM

1420 Spring Hill Road,
Suite 610,
Tysons, VA 22102
703-917-6620
WellsandAssociates.com

TO: City of Gaithersburg

CC: Greg Reed, Kimco Realty Corporation
James Buchheister, VIKA
Matthew Fitzsimmons, HCM

FROM: Michael J. Workosky, PTP, TOPS, TSOS
John F. Cavan, IV, P.E., PTOE
Jillian G. Kinder

RE: Travis Avenue Project
Traffic Operations and Site Access Study
Gaithersburg, Maryland

DATE: October 13, 2021

Introduction

This memorandum summarizes a preliminary traffic operations and site access study for the Travis Avenue Property located in Gaithersburg, Maryland. The site is currently improved with 88,277 S.F. of retail shopping center uses. It is located on the east side of Frederick Road (MD 355) and south of Travis Avenue in the City of Gaithersburg, Maryland as shown on Figure 1. The site is currently served by a right-in/right-out driveway on MD 355 and three (3) driveways on Travis Avenue.

The site is proposed to be redeveloped with a mix of retail and residential uses. The retail space would be reconfigured and reduced to 48,000 S.F. of space and be accompanied by 580 residential apartment units. The existing surface parking areas would be replaced by two (2) structured parking garages as shown on Figure 2. The MD 355 driveway would remain in its current configuration to serve a central driveway through the site. The site driveways on Travis Avenue are proposed to be modified to provide direct access to the parking garages and central driveway. The proposed driveways would be located at the approximate locations as the existing entrances while the westernmost driveway would be converted into right-in access only.

This preliminary analysis evaluates the traffic operations of the proposed driveways along Travis Avenue and MD 355 with the proposed redevelopment of the site.

Proposed Site Access

As described previously and shown on Figure 2, vehicular access to the site is proposed via three (3) locations along Travis Avenue. The West Driveway would enter Level 1 of the west parking garage, will be primarily used by retail patrons, and will be limited to right-in traffic only. The central driveway (Street A) would provide access to Level 0 of the west parking garage on the north side of the structure (primarily for residents) and connect to the access on the south side of the west garage at Level 1 for retail customers. The East Driveway would provide access to the east parking garage on the northeast part of the structure and would serve both residential and retail uses.

The approximate driveway separation is shown below (measured center-to-center):

From	To	Distance (approx.)
West Driveway	Old Game Preserve Road	65 feet
Old Game Preserve Road	Street A	150 feet
Street A	Tavis View Court	290 feet
Travis View Court	East Driveway	135 feet

Travis Avenue is classified as a Minor Collector in the City of Gaithersburg Master Plan Transportation Element.

Traffic Forecasts

Traffic forecasts were prepared for 2024 conditions based on a composite of existing traffic counts, regional growth, pipeline development traffic, adjustments for the removal of existing shopping center trips, and site trip assignments. The methodologies and assumptions are described below, and the forecasting layers are shown in detail in Appendix A.

Existing Traffic Data. 2016 weekday traffic count data for the MD 355/Travis Avenue intersection was obtained through the Maryland State Highway Administration (SHA) traffic monitoring system (note that weekend data was not available). This data was used to determine the through traffic volumes along Travis Avenue in the vicinity of the site entrances. Traffic was assigned to Old Game Preserve, Travis View Court, and the existing site driveways based on existing travel patterns and engineering judgement.

Regional Growth and Adjustments for Baseline Conditions. A review of historical AADT traffic data over the previous ten years showed average traffic growth of 1.0 percent per year. Thus, the turning movements at the MD 355/Travis Avenue intersection were grown at 1.0 percent per year for five (5) years to reflect current 2021 conditions. Additional adjustments were made at the Old Game Preserve Road intersection and at Travis View Court based on the number of

residential units served by the facility. In addition, traffic at the site driveways was estimated based on the existing trip generation of the property. Baseline volumes for 2024 were derived by applying the growth rate to the through traffic along Travis Avenue.

Pipeline Development Traffic. In addition to regional traffic growth, traffic from two nearby proposed pipeline developments was assumed. Specifically, the Fitzway at Travis Avenue car showroom/storage facility on the North side of Travis Avenue and The Spectrum at Watkins Mill residential uses southwest of MD 355 were assumed. The trip generation for these developments were estimated based on rates/equations presented in the Institute of Transportation of Engineers (ITE) Trip Generation, 10th Edition and are summarized in Table 1. These pipeline developments are expected to generate 82 AM peak hour, 106 PM peak hour, and 1,294 daily trips. These trips were assigned to the subject roadway network based on existing travel patterns and engineering judgment.

Site Trip Generation. Site generated traffic was estimated based on rates/equations presented in the Institute of Transportation of Engineers (ITE) Trip Generation, 10th Edition and are summarized in Table 2. Based on the existing retail development program, the site expected to generate 196 AM peak hour trips (122 in and 74 out), 327 PM peak hour trips (157 in and 170 out), and 3,645 daily trips. It would generate 415 peak hour trips (216 in and 199 out) and 6,104 daily trips on Saturday.

The proposed site redevelopment program is expected to generate 368 AM peak hour trips (159 in and 209 out), 448 PM peak hour trips (246 in and 202 out), and 5,568 daily trips. It would generate 507 peak hour trips (256 in and 251 out) and 6,364 daily trips on Saturday.

Thus, the proposed development program would generate 172 more AM peak hour trips, 121 more PM peak hour trips, and 1,923 more daily trips than the currently approved program. It would generate 92 more peak hour trips and 260 more daily trips on Saturday than the currently approved program.

Traffic Operations Summary

Future traffic forecasts were prepared for the key site driveways along Travis Avenue and MD 355 for future conditions with the site development by assigning the site generated trips to each of the driveways. The intersections along Travis Avenue were analyzed from a traffic operations perspective to evaluate the intersections and site driveways surrounding the property based on the aforementioned existing traffic data, regional growth, and site generated trips, and are summarized on Table 3. Synchro worksheets are included in Appendix B.

The following summarizes the results of the preliminary traffic assessment at key locations and items for consideration:

1. The capacity analyses results indicate that all of the turning movements along Travis Avenue at the site access driveways would operate at acceptable levels of service during both the AM and PM peak hours with minimal queuing. Therefore, traffic operations on Travis Avenue would not be significantly affected by the proposed redevelopment. Note that while weekend data was not available for this assessment, the weekday conditions are more likely to be critical given the shift in use from retail to residential.

2. The driveways serving Building A that allow access to the Level P1 of the parking garage from both MD 355 and Travis Avenue would provide convenient access for retail customers and reduce potential southbound u-turns at Watkins Mill Road. It also separates residential traffic by providing direct access to Level 1 of the parking garage from Street A.

3. The Street A and East Driveway intersections on Travis Avenue are expected to operate at acceptable levels of service with few conflicts and minor queues during both the AM and PM peak hours based on the proposed design.

4. The location of the garage A access along Street A would provide corner clearance for vehicles turning from Travis Avenue and allow for queuing along Street A approaching Travis Avenue. This queue is expected to be one (1) to two (2) vehicles.

5. Restricting access to the West Driveway to right-in only access would help eliminate vehicular conflicts between site traffic and vehicles turning onto Old Game Preserve Road. In addition, this driveway provides direct access to the retail parking garage and would reduce internal retail site traffic along Street A.

Questions regarding this document should be directed to Wells + Associates.

O:\Projects\8501-9000\8595 Travis Avenue Site Assessment\Documents\Report\Travis Avenue Site Access Study (Final 10.13.2021).docx

Figure 1
Site Location Map

NORTH

Travis Avenue - Site Access Study
Gaithersburg, Maryland

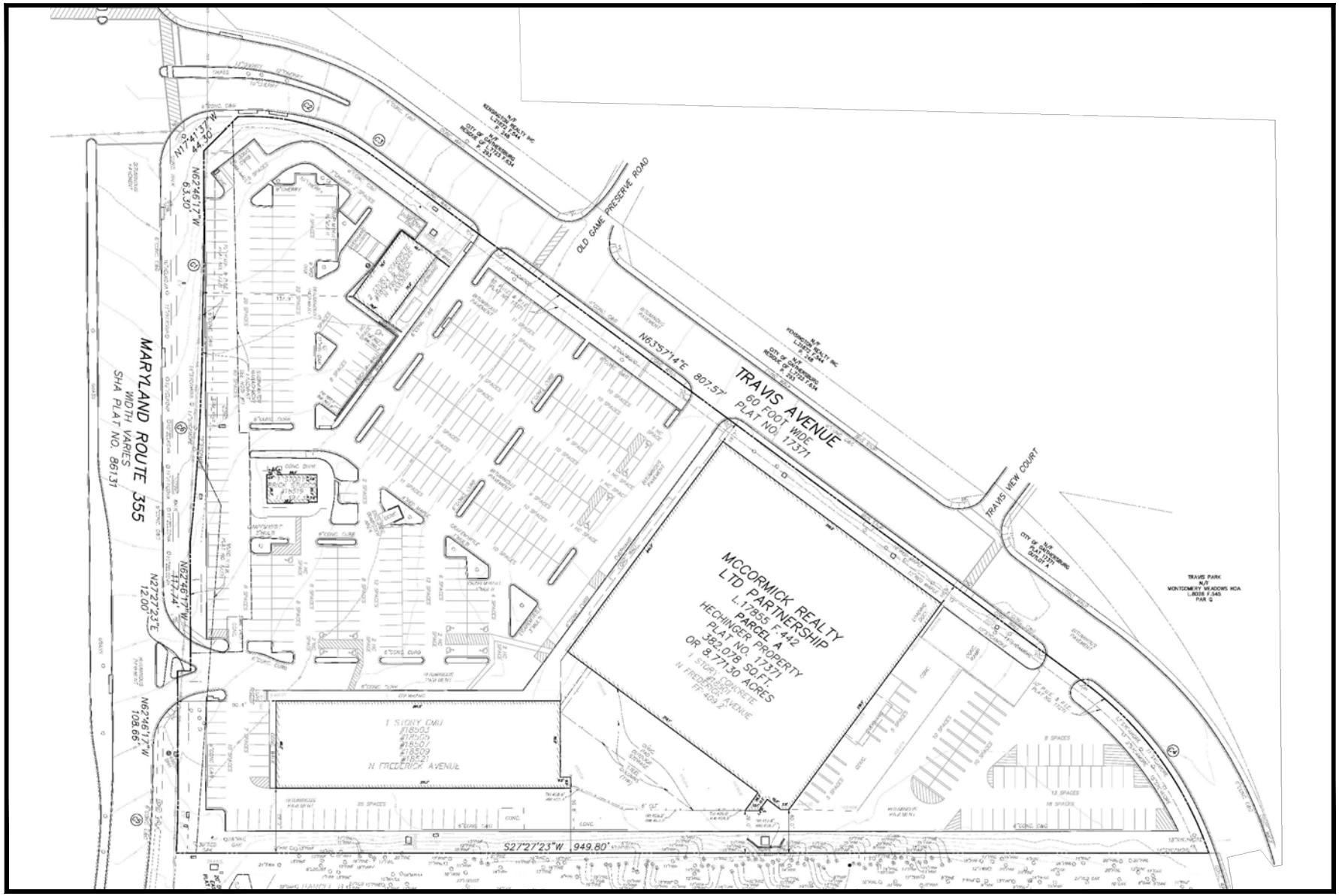


Figure 2
Existing Conditions Plan

NORTH

Travis Avenue - Site Access Study
Gaithersburg, Maryland

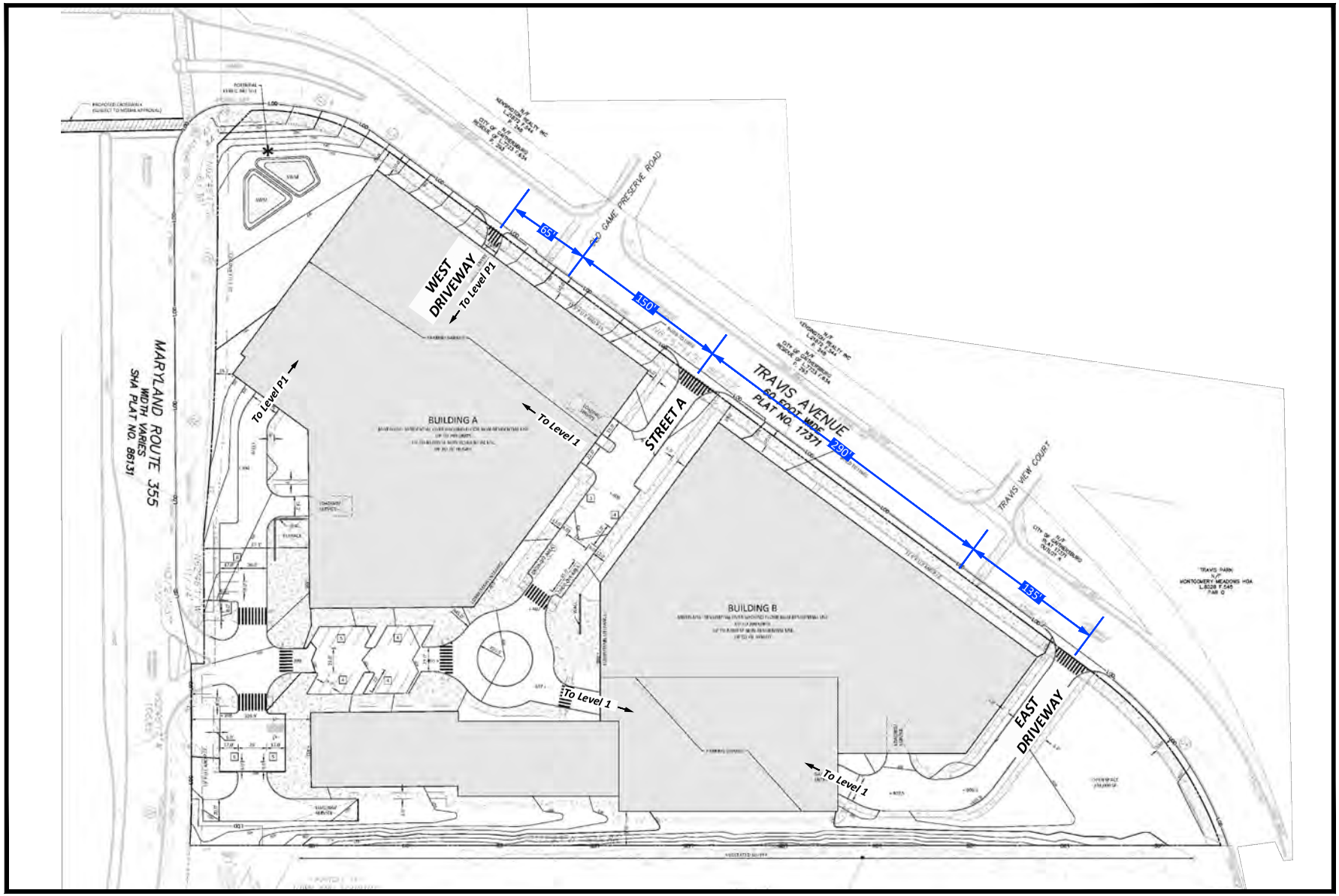


Figure 3
Proposed Conditions Plan

NORTH

Travis Avenue - Site Access Study
Gaithersburg, Maryland

Table 1
Travis Ave
Site Trip Generation Analysis [1]

Land Use	ITE Code	Size	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Trips
Fitzway at Travis Avenue										
Car Sales (Used)	841	2,567	S.F.	5	1	6	5	5	10	69
Spectrum at Watkins Mill										
Residential	221	225	D.U.	20	56	76	59	37	96	1,225
Total Background Development Trips				**25**	**57**	**82**	**64**	**42**	**106**	**1,294**

Notes:
1. Trip Generation obtained from ITE's Trip Generation Manual, 10th Edition.

Table 2
Travis Ave
Site Trip Generation Analysis [1]

Land Use	ITE Code	Size	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Saturday Peak Hour In	Saturday Peak Hour Out	Saturday Peak Hour Total	Average Daily Trips	Saturday Daily Trips
Existing														
Retail	820	88,277	S.F.	122	74	196	238	257	495	292	269	561	5,523	8,249
Passby (0% AM, 34% PM, 26% Sat)				-	-	-	*-81*	*-87*	*-168*	*-76*	*-70*	*-146*	*-1,878*	*-2,145*
Total Proposed Trips				***122***	***74***	***196***	***157***	***170***	***327***	***216***	***199***	***415***	***3,645***	***6,104***
Proposed														
Residential	221	580	D.U.	50	142	192	146	93	239	123	127	250	3,159	2,180
Retail	820	48,000	S.F.	109	67	176	152	164	316	180	167	347	3,650	5,654
Passby (0% AM, 34% PM, 26% Sat)				-	-	-	*-52*	*-55*	*-107*	*-47*	*-43*	*-90*	*-1,241*	*-1,470*
Total Proposed Trips				***159***	***209***	***368***	***246***	***202***	***448***	***256***	***251***	***507***	***5,568***	***6,364***
Net New Trips (Proposed - Existing)				**37**	**135**	**172**	**89**	**32**	**121**	**40**	**52**	**92**	**1,923**	**260**

Notes:

1. Trip Generation obtained from ITE's Trip Generation Manual, 10th Edition.

Table 3
Travis Avenue
Levels of Service Summary[1]

Approach/Lane Group	2024 Future Conditions with Development					
	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	95th % Queue (ft)	LOS	Delay (s)	95th % Queue (ft)
1. Travis Ave/Site Driveway 1 - Unsignalized						
EBTR	A	0.0	0'	A	0.0	0'
WBT	A	0.0	0'	A	0	0'
2. Travis Ave/Old Game Preserve Rd - Unsignalized						
EBLT	A	7.9	2.5'	A	7.9	2.5'
WBTR	A	0.0	0'	A	0.0	0'
SBLR	B	10.3	5'	B	10.1	7.5'
3. Travis Ave/Site Driveway 2 (Future Street A) - Unsignalized						
EBTR	A	0.0	0'	A	0.0	0'
WBLT	A	7.4	2.5'	A	7.6	2.5'
NBLR	B	12.2	30'	B	12.5	30'
4. Travis Ave/Travis View Court - Unsignalized						
EBLT	A	7.6	0.0	A	7.6	0'
WBTR	A	0.0	0.0	A	0.0	0'
SBLR	A	9.5	2.5'	A	9.9	2.5'
5. Travis Ave/Site Driveway 3 - Unsignalized						
EBTR	A	0.0	0'	A	0.0	0'
WBLT	A	7.4	0'	A	7.5	0'
NBLR	A	9.8	5'	B	10.2	2.5'
6. Frederick Ave/Site Driveway 4 (RIRO) - Unsignalized						
WBLR	A	0.0	0'	A	0.0	0'
NBTR	A	0.0	0'	A	0.0	0'
SBT	A	0.0	0'	A	0.0	0'

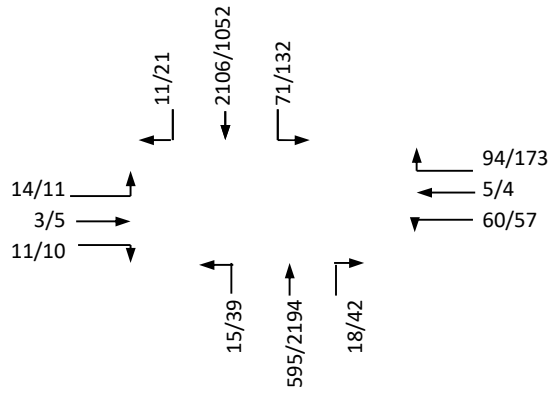
Notes:
1. Capacity analysis based on Highway Capacity Manual 6th Edition methodology, using Synchro 10 unless otherwise noted.

Appendix A

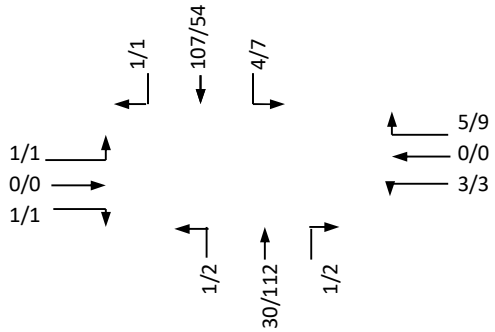
Traffic Forecasts

MD 355/ Travis Avenue Volumes

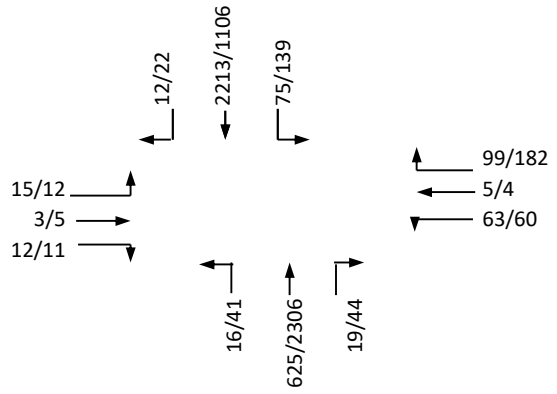
Existing Traffic Volumes (2016)



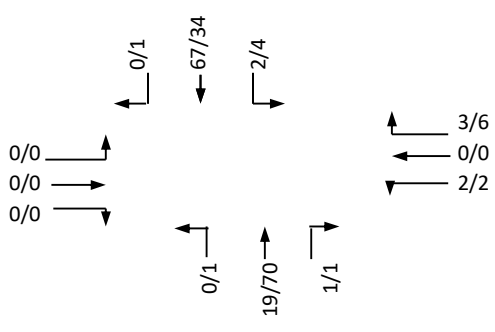
Growth (2016-2021)



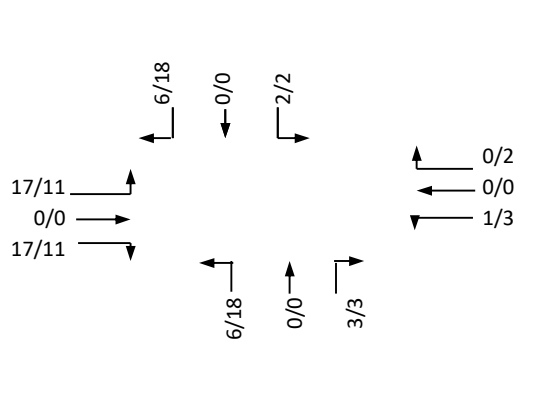
Baseline Traffic Volumes (2021)



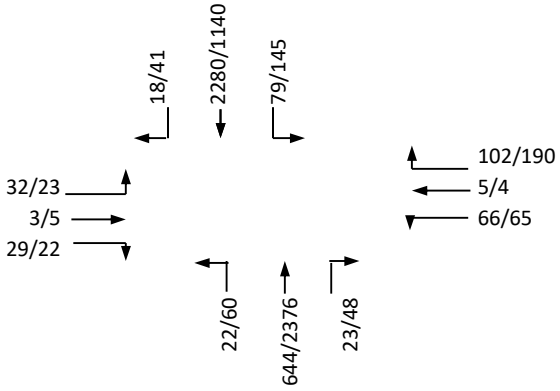
Growth (2021-2024)



Pipeline Trips

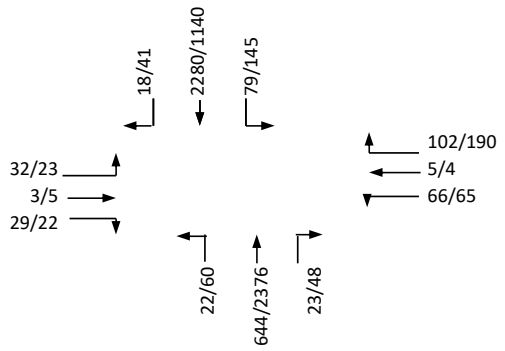


2024 Background Future Traffic Volumes

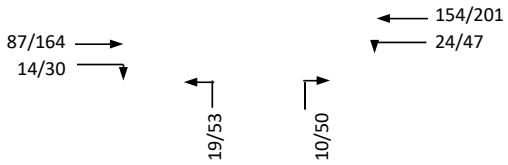


2024 Background Future Volumes

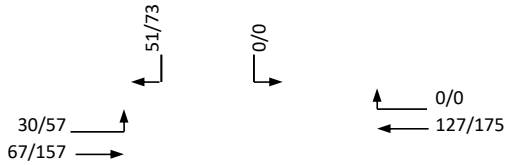
1. MD 355 & Travis Avenue



2. Travis Avenue & West Driveway

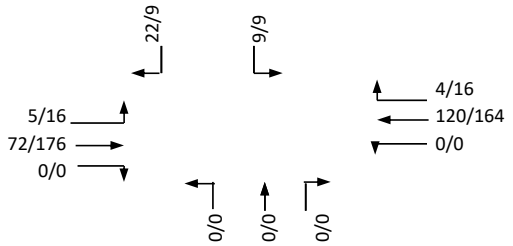


3. Travis Avenue & Old Game Preserve

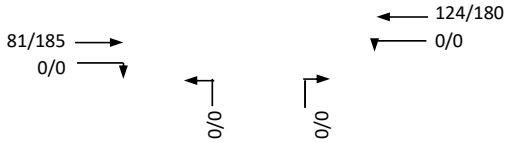


4. Travis Avenue & Middle Driveway

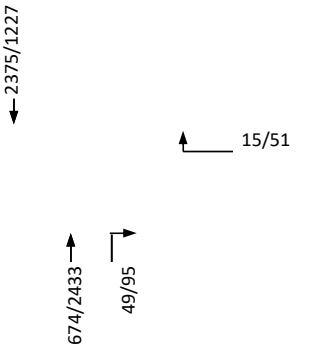
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway

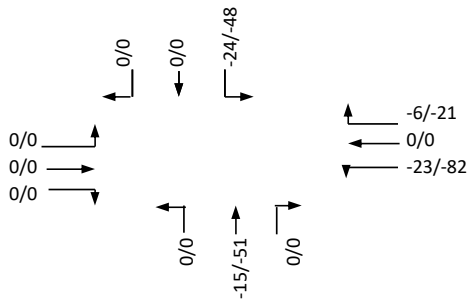


7. MD 355 & Site Driveway

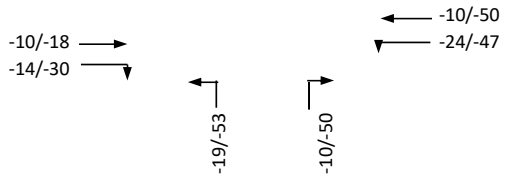


Existing Trips Removed

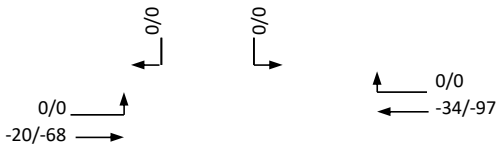
1. MD 355 & Travis Avenue



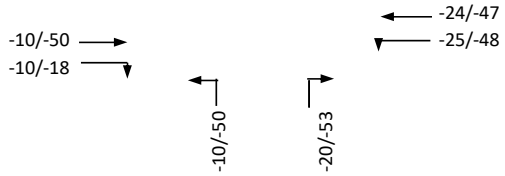
2. Travis Avenue & West Driveway



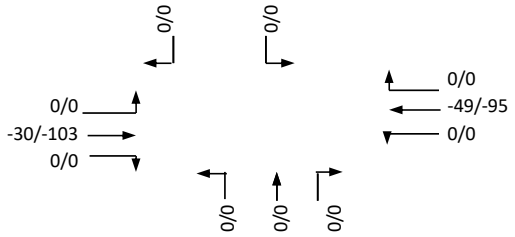
3. Travis Avenue & Old Game Preserve



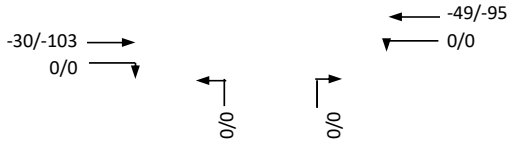
4. Travis Avenue & Middle Driveway



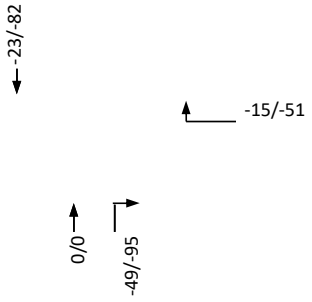
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway

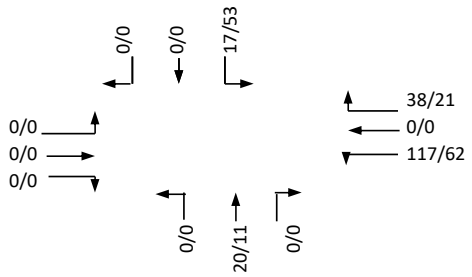


7. MD 355 & Site Driveway

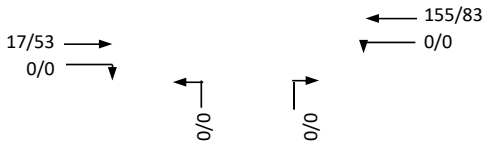


Residential Trip Assignments

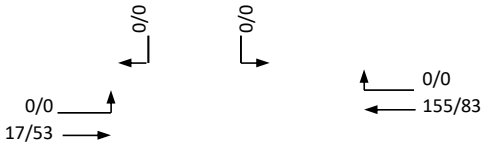
1. MD 355 & Travis Avenue



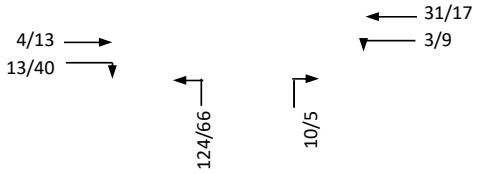
2. Travis Avenue & West Driveway



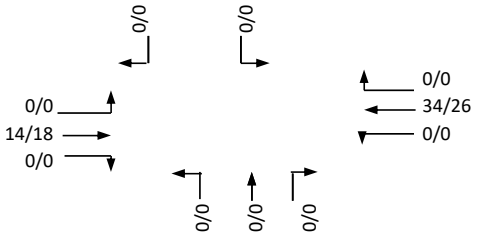
3. Travis Avenue & Old Game Preserve



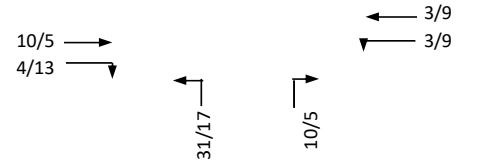
4. Travis Avenue & Middle Driveway



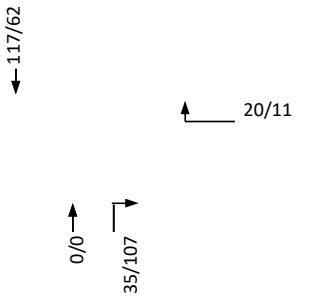
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway

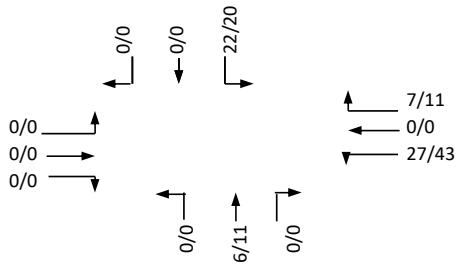


7. MD 355 & Site Driveway

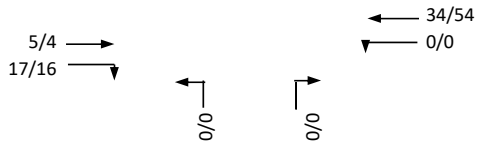


Retail (Primary) Trip Assignments

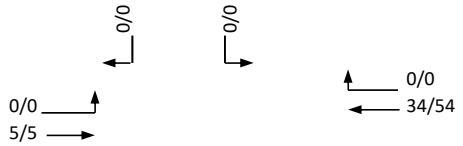
1. MD 355 & Travis Avenue



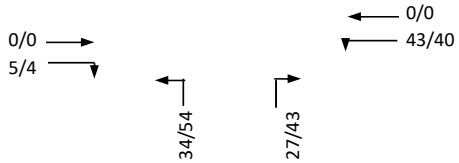
2. Travis Avenue & West Driveway



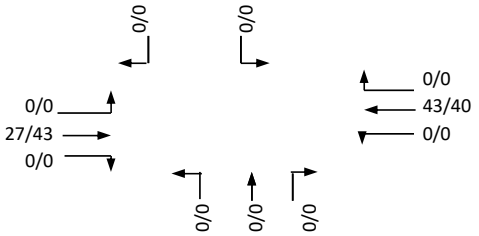
3. Travis Avenue & Old Game Preserve



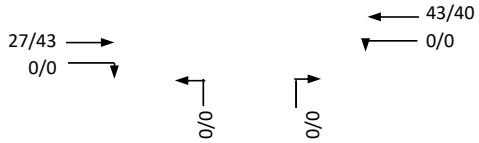
4. Travis Avenue & Middle Driveway



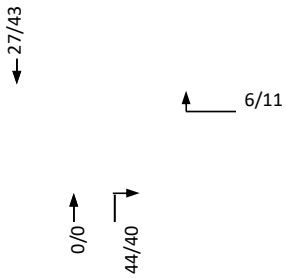
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway

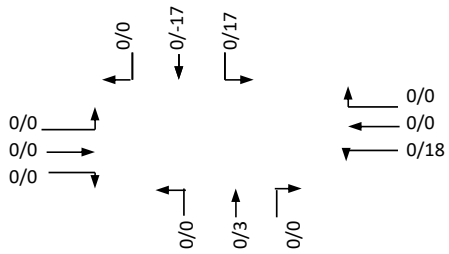


7. MD 355 & Site Driveway

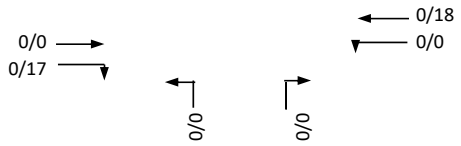


Retail (Pass-By) Trip Assignments

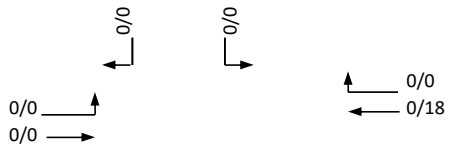
1. MD 355 & Travis Avenue



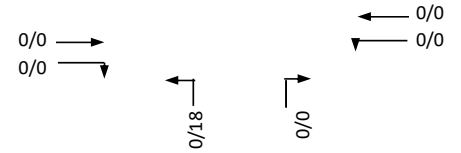
2. Travis Avenue & West Driveway



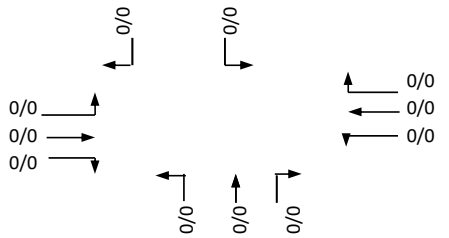
3. Travis Avenue & Old Game Preserve



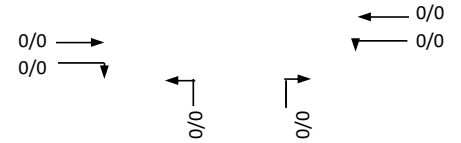
4. Travis Avenue & Middle Driveway



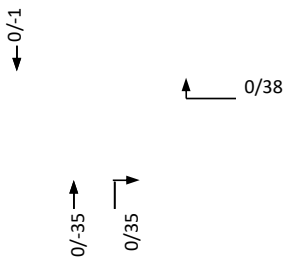
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway

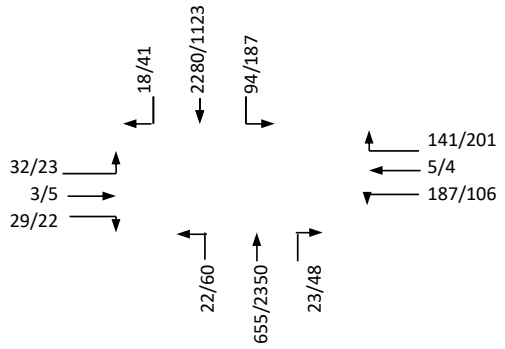


7. MD 355 & Site Driveway



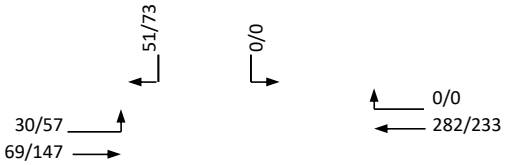
2024 Total Future Traffic Volumes

1. MD 355 & Travis Avenue



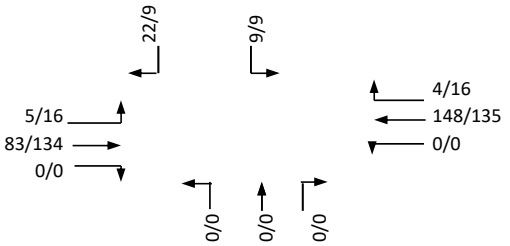
2. Travis Avenue & West Driveway

3. Travis Avenue & Old Game Preserve

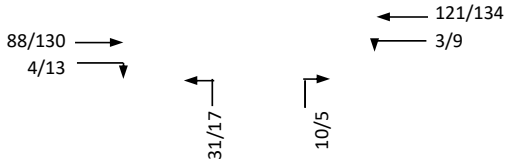


4. Travis Avenue & Middle Driveway

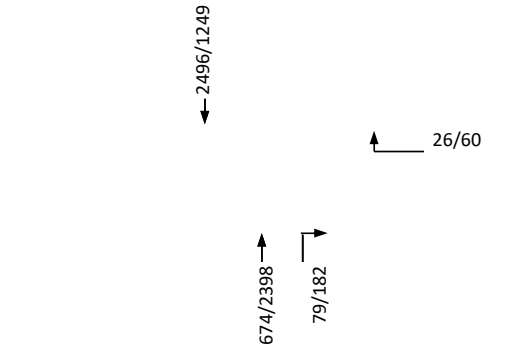
5. Travis Avenue and Travis View Court



6. Travis Avenue & East Driveway



7. MD 355 & Site Driveway



Appendix B

Synchro Worksheets

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	674	79	0	2496
Future Vol, veh/h	0	26	674	79	0	2496
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	733	86	0	2713

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	-	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	-	-	0	-
Stage 1	0	0	-	-	0	-
Stage 2	0	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	69	282	0	0	51
Future Vol, veh/h	30	69	282	0	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	75	307	0	0	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	448	307
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1254	-	-	-	568	733
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1254	-	-	-	553	733
Mov Cap-2 Maneuver	-	-	-	-	553	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	886	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1254	-	-	-	733
HCM Lane V/C Ratio	0.026	-	-	-	0.076
HCM Control Delay (s)	7.9	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	51	18	46	124	158	37
Future Vol, veh/h	51	18	46	124	158	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	20	50	135	172	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	75	0	300	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	235	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1524	-	691	999
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	804	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1524	-	667	999
Mov Cap-2 Maneuver	-	-	-	-	667	-
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	1524	-
HCM Lane V/C Ratio	0.298	-	-	0.033	-
HCM Control Delay (s)	12.2	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	83	148	4	9	22
Future Vol, veh/h	5	83	148	4	9	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	90	161	4	10	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	165	0	-	0	263	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1413	-	-	-	726	882
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1413	-	-	-	723	882
Mov Cap-2 Maneuver	-	-	-	-	723	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	924	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1413	-	-	-	829
HCM Lane V/C Ratio	0.004	-	-	-	0.041
HCM Control Delay (s)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	4	3	121	31	10
Future Vol, veh/h	88	4	3	121	31	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	4	3	132	34	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	100	0	236	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1493	-	752	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	889	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1493	-	750	958
Mov Cap-2 Maneuver	-	-	-	-	750	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	792	-	-	1493	-
HCM Lane V/C Ratio	0.056	-	-	0.002	-
HCM Control Delay (s)	9.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	60	2398	182	0	1249
Future Vol, veh/h	0	60	2398	182	0	1249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	2607	198	0	1358

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	-	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	-	-	0	-
Stage 1	0	0	-	-	0	-
Stage 2	0	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	146	233	0	0	73
Future Vol, veh/h	57	146	233	0	0	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	159	253	0	0	79

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	253	0	-	0	536	253
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1312	-	-	-	505	786
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1312	-	-	-	479	786
Mov Cap-2 Maneuver	-	-	-	-	479	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1312	-	-	-	786
HCM Lane V/C Ratio	0.047	-	-	-	0.101
HCM Control Delay (s)	7.9	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	102	44	49	95	138	48
Future Vol, veh/h	102	44	49	95	138	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	48	53	103	150	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	159	0	344	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1420	-	652	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1420	-	626	914
Mov Cap-2 Maneuver	-	-	-	-	626	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	793	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	681	-	-	1420	-
HCM Lane V/C Ratio	0.297	-	-	0.038	-
HCM Control Delay (s)	12.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	134	135	16	9	9
Future Vol, veh/h	16	134	135	16	9	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	146	147	17	10	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	164	0	-	0	336	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	180	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1414	-	-	-	659	890
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1414	-	-	-	650	890
Mov Cap-2 Maneuver	-	-	-	-	650	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	851	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1414	-	-	-	751
HCM Lane V/C Ratio	0.012	-	-	-	0.026
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	13	9	134	17	5
Future Vol, veh/h	130	13	9	134	17	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	141	14	10	146	18	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	155	0	314	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	166	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1425	-	679	899
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1425	-	674	899
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	856	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	715	-	-	1425	-
HCM Lane V/C Ratio	0.033	-	-	0.007	-
HCM Control Delay (s)	10.2	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-