

September 30, 2021

Mr. Jeffrey Fansler  
Deputy Director of Transportation – Winston Salem  
101 N Main Street  
Winston-Salem, North Carolina 27101

Subject: Traffic Impact Assessment for MG Old Lexington Road [aka Harvest Creek]  
Winston Salem, North Carolina

Dear Mr. Fansler:

This letter summarizes the findings of the Traffic Impact Assessment (TIA) performed by Ramey Kemp Associates (RKA) for the proposed MG Old Lexington Road residential development [also known as Harvest Creek] located at 4000 Old Lexington Road in Winston Salem, North Carolina. The proposed development will consist of up to 275 townhome units. The purpose of this study is to determine the potential impact created by the additional traffic that could be generated by the proposed development, which is anticipated to be completed by the end of the year 2026. In order to accomplish this objective, the study analyzed the existing [2021 Existing] and future traffic conditions with and without the site built [2026 No-Build and Build] during the weekday AM and PM peak hours. The study area for this analysis included the intersection of Old Lexington Road at Teague Road, as well as the proposed site access on Old Lexington Road.

Background

As mentioned, development is proposed to consist of up to 275 townhome units with access provided via one (1) new full movement connection on Old Lexington Road north of Teague Road. Refer to the attached appendix for the site location map and conceptual site plan.

The project study area was determined through coordination with the City of Winston Salem (City). Table 1 summarizes the characteristics of the roadways within the study area. Refer to the attached appendix for an illustration of the existing lane configurations (number of traffic lanes on the intersection approach), storage capacities, and other intersection and roadway information for the study area.

TABLE 1  
Study Area Roads

ROADWAY	CROSS-SECTION	2019 ADT (VPD)	SPEED LIMIT (MPH)
Old Lexington Road	Two-Lane	5,000	45
Teague Road	Two-Lane	2,600	45

Existing Traffic Conditions

Existing traffic data was collected at the study intersections during the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak periods on a normal weekday in 2021 when school was in session. Refer to the attached appendix for an illustration of the 2021 existing peak hour traffic volumes. Refer to the attached appendix for a copy of the raw traffic count data.

Future ‘No-Build’ Traffic Conditions

In order to account for the growth of traffic and subsequent traffic conditions at a future year, background traffic projections are needed. Background traffic is the component of traffic due to growth of the community and surrounding area that is anticipated to occur regardless of whether the site is developed. Based on historical AADT growth within the area, a compounded annual growth rate of 1.5% was applied to the 2021 traffic volumes to project background traffic volumes for the horizon year 2026. Refer to the attached appendix for an illustration of the future 2026 ‘no-build’ peak hour traffic volumes.

Trip Generation

The average weekday daily as well as the AM and PM peak hour site trips were calculated utilizing the 10<sup>th</sup> Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Traffic was generated according to the peak hour of adjacent street traffic, utilizing the dwelling units as the independent variable for low-rise multifamily apartments use (ITE Code 220). ITE equations were used to generate trips for the proposed land use. Refer to Table 2 for the trip generation.

TABLE 2  
Site Trip Generation

ITE Land Use (Code)	Independent Variable	Average Daily Traffic (vpd)	AM Peak Hour (vph)		PM Peak Hour (vph)	
			Enter	Enter	Enter	Exit
Multi-Family Low-Rise Housing (220)	275 dwelling Units	2,038	29	96	91	54

It is estimated that the proposed development could generate 2,038 total trips (entering and exiting) during a typical 24-hour weekday period. Of these daily traffic volumes, it is anticipated that the site could generate 125 trips (29 entering and 96 exiting) during the AM peak hour and 145 trips (91 entering and 54 exiting) during the PM peak hour.

### Trip Distribution and Assignment

Site trip distribution percentages used for this study were developed based on existing traffic patterns and engineering judgment. The primary site trip distribution is estimated as:

- 50% to/from the north via Old Lexington Road
- 30% to/from the south via Old Lexington Road
- 20% to/from the east via Teague Road

Refer to the attached appendix for illustrations of the site trip distribution and site trip assignment.

### Future 'Build' Traffic Conditions

In order to estimate traffic conditions with the site developed, the site traffic was combined with the future 'no-build' peak hour volumes. Refer to the attached appendix for an illustration of the future 2026 'build' peak hour traffic volumes.

### Capacity Analysis

The study intersections were analyzed using the methodology outlined in the Highway Capacity Manual (HCM) published by the Transportation Research Board. The computer software package, Synchro (Version 10.3) was utilized to perform all analyses. Synchro was developed by Trafficware Corporation and allows the user to input data into the Synchro software and calculate the output based on methodologies in the HCM.

The HCM defines capacity as "the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions." Level of service (LOS) is a term used to represent different driving conditions and is defined as a "qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers." Level of service varies from LOS "A" representing free flow to LOS "F" where greater vehicle delays are evident. Capacity analysis results for unsignalized intersections do not provide an overall LOS, but rather a LOS for movements and/or approaches that have a conflicting movement. Delay and LOS are the design criteria for this analysis.

Refer to Table 2 for HCM levels of service and related average control delay per vehicle. Control delay as defined by the HCM includes "initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay." As shown in Table 2, an average control delay of 30 seconds at an unsignalized intersection results in level of service D operation at the intersection.

TABLE 2  
Highway Capacity Manual Levels of Service and Delay

Unsignalized Intersection	
Level of Service	Average Control Delay Per Vehicle (Seconds)
A	0-10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Existing traffic conditions were analyzed utilizing existing lane geometrics. All future traffic conditions were analyzed according to congestion management guidelines:

- PHFs = 0.90
- Heavy Vehicle Percentage = 2%

Refer to Tables 4-5 for summaries of the analysis results for the weekday AM and PM peak hours at each of the study intersections.

Old Lexington Road and Teague Road

The intersection of Old Lexington Road and Teague Road was analyzed as a three-leg unsignalized intersection under all traffic conditions. Table 4 summarizes the capacity analysis results. Detailed Synchro analysis reports can be found in the attached appendix.

TABLE 4  
Analysis Results for Old Lexington Road and Teague Road

ANALYSIS SCENARIO	A P P R O A C H	LANE CONFIGURATIONS	AM PEAK HOUR		PM PEAK HOUR	
			Approach LOS (Delay)	Overall LOS (Delay)	Approach LOS (Delay)	Overall LOS (Delay)
2021 Existing	WB <sup>2</sup> NB SB <sup>1</sup>	1 LT-RT 1 TH-RT 1 LT-TH	B (11.0) - A (7.9)	N/A	B (11.2) - A (7.7)	N/A
2026 No-Build	WB <sup>2</sup> NB SB <sup>1</sup>	1 LT-RT 1 TH-RT 1 LT-TH	B (11.3) - A (7.9)	N/A	B (11.6) - A (7.7)	N/A
2026 Build	WB <sup>2</sup> NB SB <sup>1</sup>	1 LT-RT 1 TH-RT 1 LT-TH	B (11.8) - A (8.0)	N/A	B (12.2) - A (7.8)	N/A

Bold indicated improvement by developer.

1. Level of Service for left-turn movement on major approach.
2. Level of service for minor-street approach.

Capacity analysis indicates that the minor street approach of Teague Road and the major street left turn movement of Old Lexington Road are expected to operate at LOS B or better during the AM and PM peak hours for all traffic conditions.

Old Lexington Road and Site Access

The intersection of Old Lexington Road and the Site Access was analyzed as a three-leg unsignalized intersection under build traffic conditions. Table 5 summarizes the capacity analysis results. Detailed Synchro analysis reports can be found in the attached appendix.

TABLE 5  
Analysis Results for Old Lexington Road and Site Access

ANALYSIS SCENARIO	A P P R O A C H	LANE CONFIGURATIONS	AM PEAK HOUR		PM PEAK HOUR	
			Approach LOS (Delay)	Overall LOS (Delay)	Approach LOS (Delay)	Overall LOS (Delay)
2026 Build	EB <sup>2</sup> NB <sup>1</sup> SB	1 LT-RT 1 LT-TH 1 TH-RT	B (11.7) A (7.6) -	N/A	B (12.6) A (8.1) -	N/A

Bold indicates new and/or revised lane configuration to be provided by developer.

1. Level of Service for left-turn movement on major approach.
2. Level of service for minor-street approach.

Capacity analysis indicates that the minor street approach of the Site Access and the major street left turn movement of Old Lexington Road are expected to operate at LOS B or better during the AM and PM peak hours for all traffic conditions.

Queuing Analysis

In addition to the capacity analysis, a queuing analysis was conducted utilizing SimTraffic. Based on the maximum queues provided by SimTraffic, queues between Teague Road and the Site Access are not expected to overlap; therefore, vehicles turning northbound left into the site or southbound left onto Teague Road are not expected to experience any significant impediments. Additionally, maximum queues are expected to increase by less than 20 feet [approximately 1 vehicle] at the intersection of Old Lexington Road and Teague Road when comparing build to no-build conditions. Finally, internal queues at the Site Access are not expected to exceed 80 feet [approximately 3 vehicles]. Refer to the attached appendix for the SimTraffic queuing reports.

Conclusions

In conclusion, the proposed development is not expected to have a significant impact on the operation of the adjacent transportation network. Based on the findings of this analysis, the major street left turn movements and the minor street approaches at the intersections of Teague Road and the proposed site access at Old Lexington Road are expected to operate at LOS B or better during the peak hours.

Additionally, queues on Old Lexington Road are not expected to overlap between Teague Road and the proposed site access. Therefore, the proposed site access is not expected to cause significant safety concerns.

Sincerely,

Ramey Kemp Associates

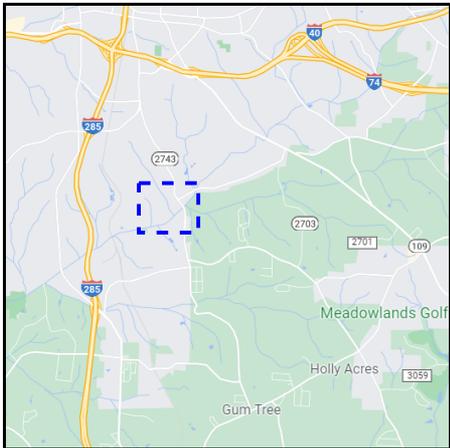
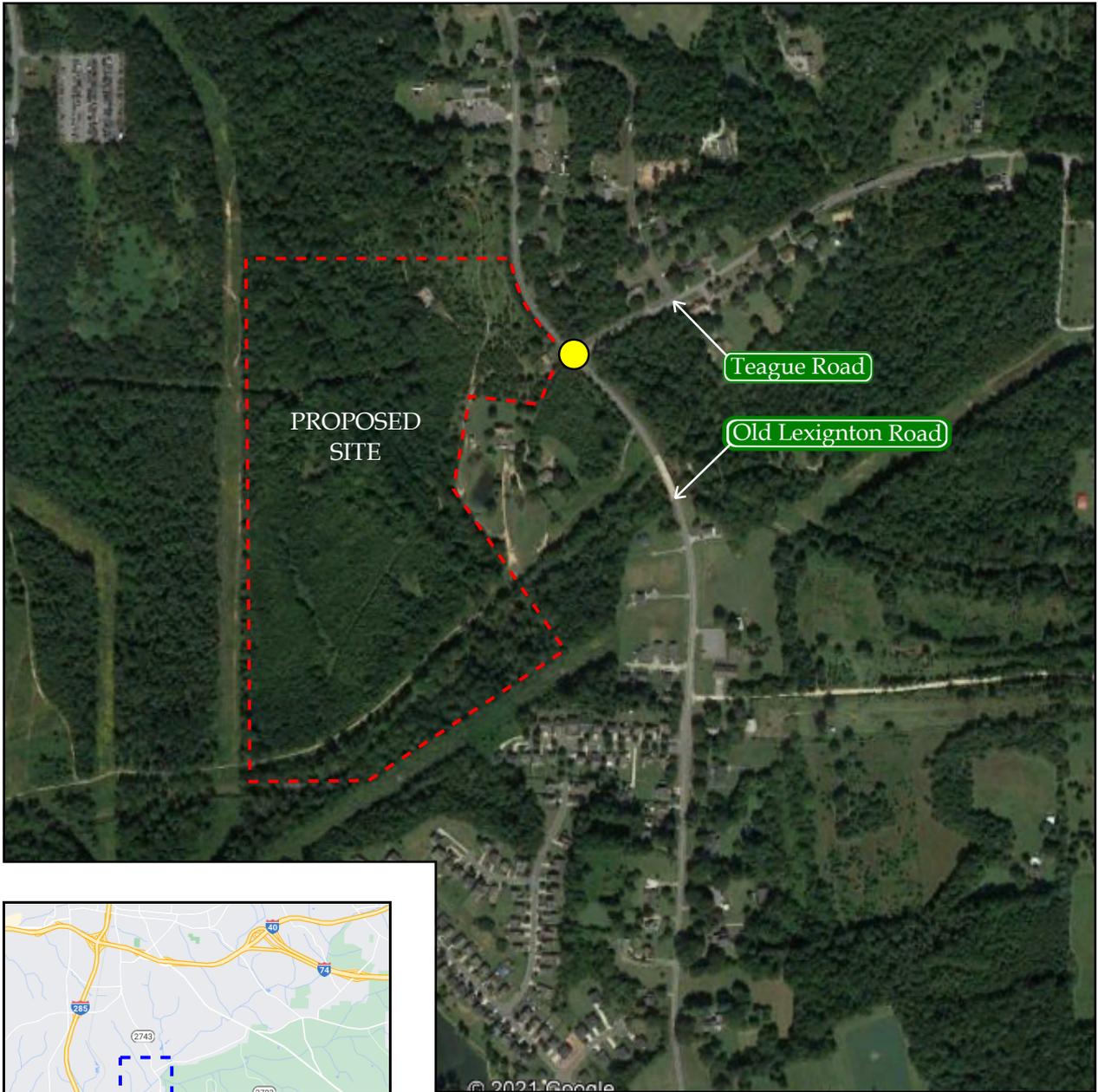
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Chase Smith, PE

# APPENDIX

# FIGURES



**LEGEND**

-  Proposed Site Location
-  Study Intersection
-  Study Area

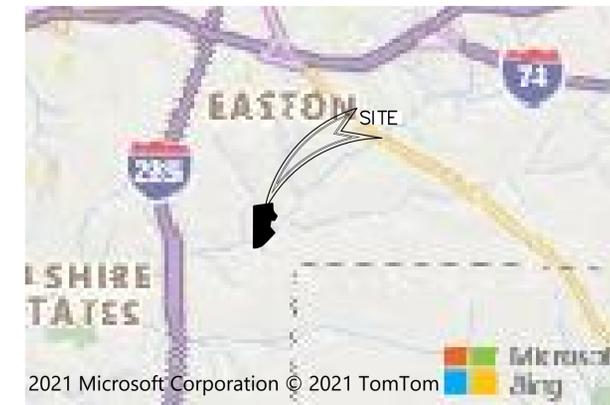
Moving forward.



MG Old Lexington Road  
Winston Salem, NC

Site Location Map

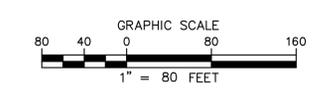
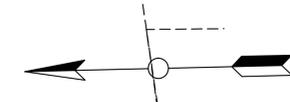
Scale: Not to Scale Figure 1



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VICINITY MAP  
NOT TO SCALE

NOTES:  
 PARCEL ID: 68395541  
 ZONING: RM8-S  
 DEVELOPER: MANGAGRAY LLC  
 PO BOX 10784  
 GREENSBORO NC 27404  
 PHONE #: 336-451-6479  
 PROP. OWNER: KI AM SISTERS, LLC  
 3662 WINDING CREEK RD.  
 WINSTON SALEM, NC 27106  
 SITE AREA: 50.01 ACRES  
 DEED REF: DB 3099 PG 2356  
 SITE IS WITHIN A DETAILED AE FLOOD HAZARD AREA.  
 TOTAL OF 277 PROPOSED TOWNHOMES



DRAWING NAME: F:\2021\210159\Civil\210159\_SKETCH PLAN.dwg - C1. PRE SITE PLAN - 9/23/2021 4:40 PM

REV	DATE	DESCRIPTION	BY	PROJECT	210159
1		DATE	08/02/2021		
2		DESIGNED	CN		
3		DRAWN	HC		
4		CHECKED	CN		
5		SCALE	AS NOTED		
6		SURVEYED	N/A		

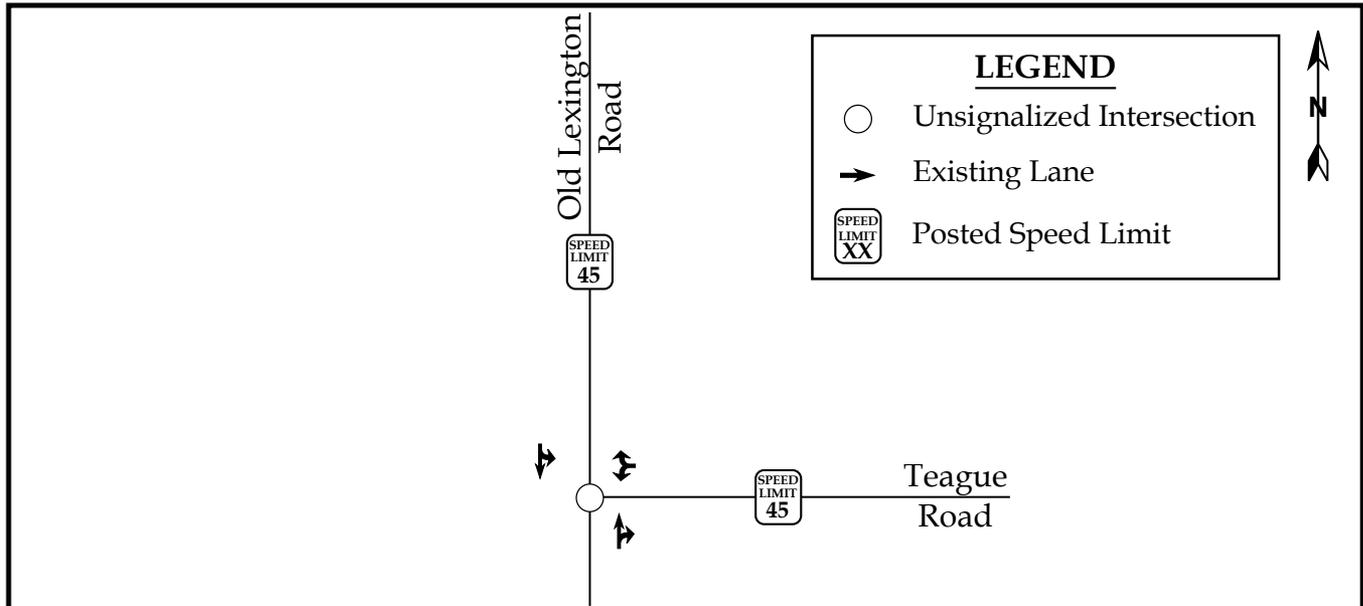
THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.



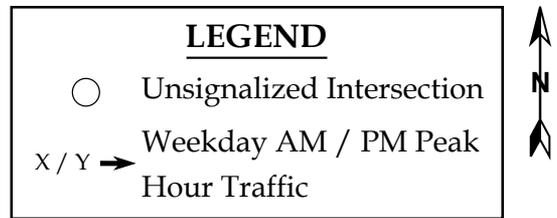
**DAVIS • MARTIN • POWELL**  
**ENGINEERS & SURVEYORS** **dmp**  
 6415 OLD PLANK RD, HIGH POINT, NC 27265 | T: (336) 886-4821 | F: (336) 886-4458 | WWW.DMP-INC.COM | LICENSE: F-0245

PRELIMINARY SITE PLAN  
 4000 OLD LEXINGTON ROAD  
 WINSTON-SALEM, FORSYTH COUNTY

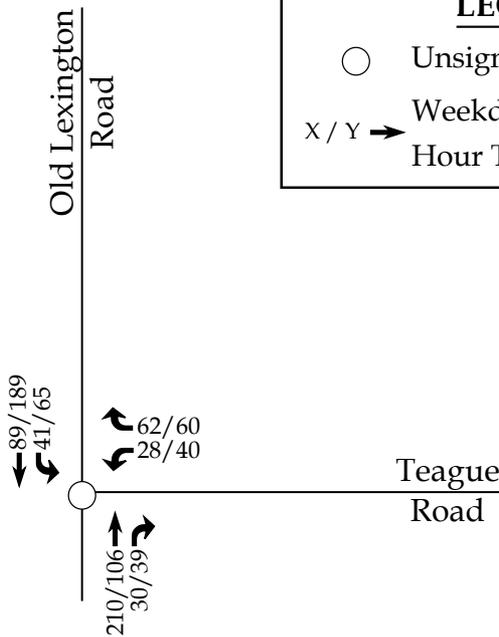
SHEET NO.   
 OF \_\_\_\_



Moving forward.  <b>RAMEY KEMP ASSOCIATES</b>	MG Old Lexington Road Winston Salem, NC	2021 Existing Lane Configurations	
		Scale: Not to Scale	Figure 3

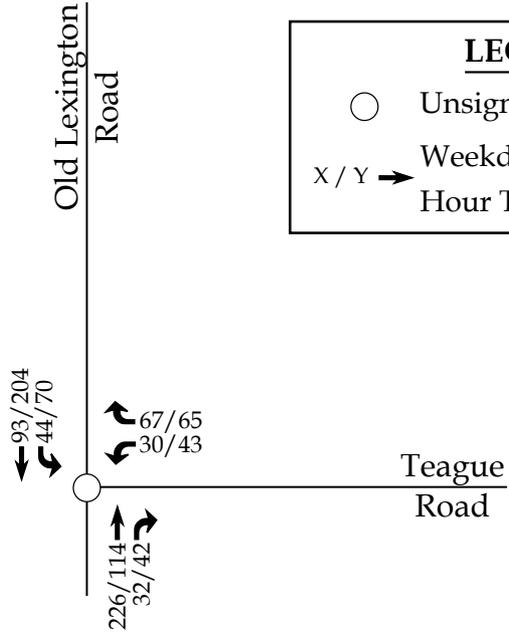


Moving forward.  <b>RAMEY KEMP ASSOCIATES</b>	MG Old Lexington Road Winston Salem, NC	2021 Existing Peak Hour Traffic	
		Scale: Not to Scale	Figure 4



**LEGEND**

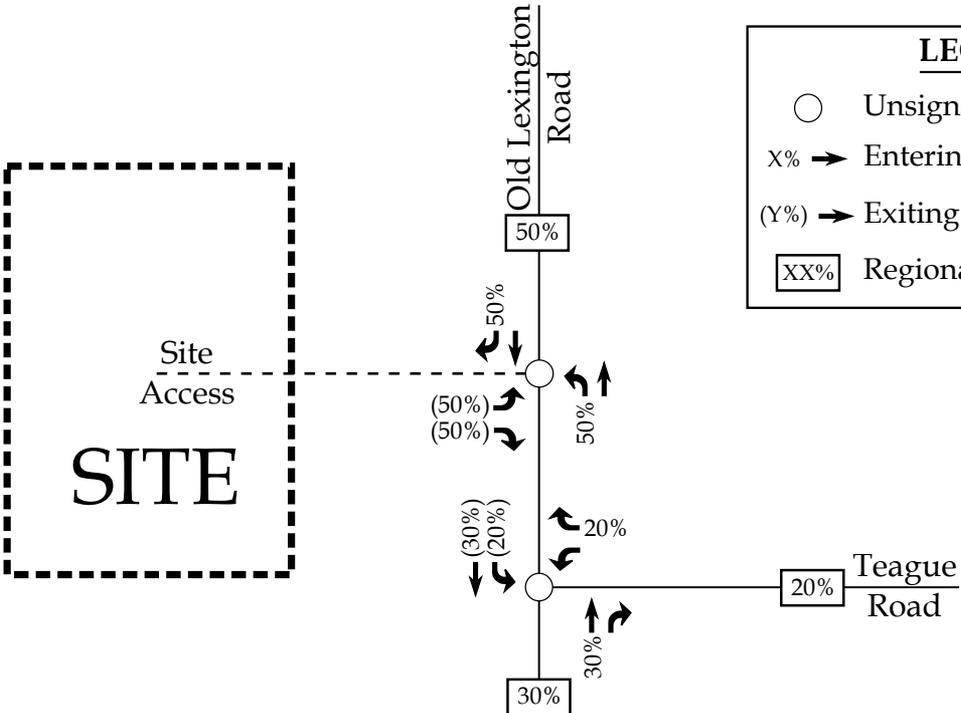
- Unsignalized Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic



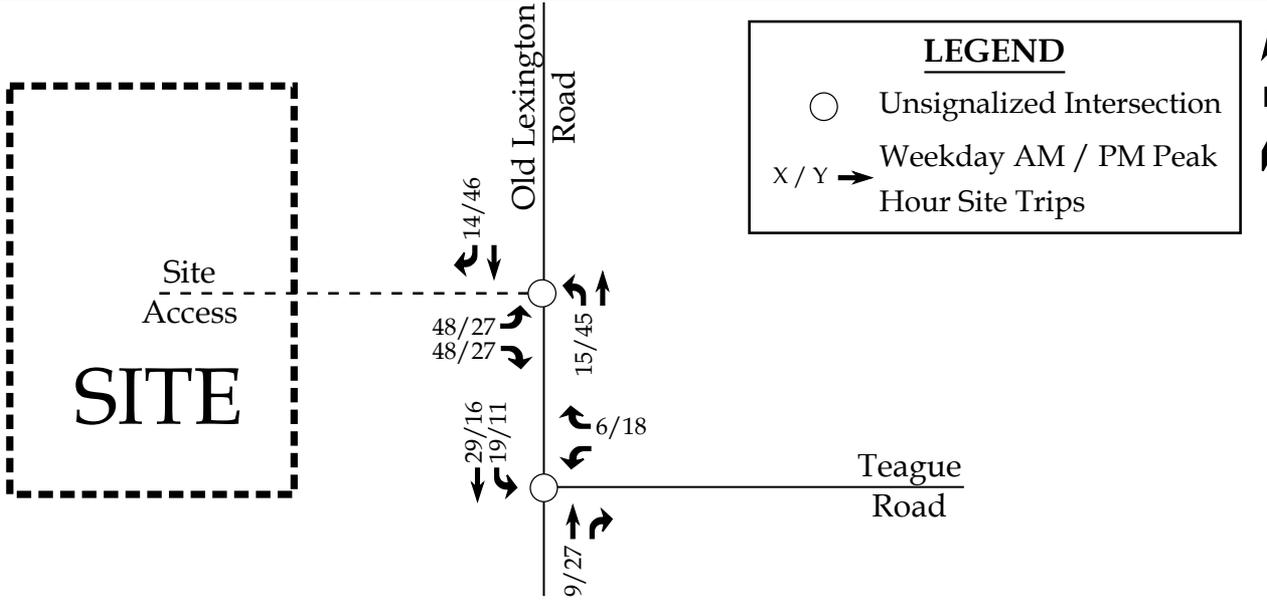
	<p>MG Old Lexington Road Winston Salem, NC</p>	<p>2026 No-Build Peak Hour Traffic</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 5</p>

**LEGEND**

- Unsignalized Intersection
- X% → Entering Trip Distribution
- (Y%) → Exiting Trip Distribution
- XX% Regional Trip Distribution



	<p>MG Old Lexington Road Winston Salem, NC</p>	<p>Site Trip Distribution</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 6</p>

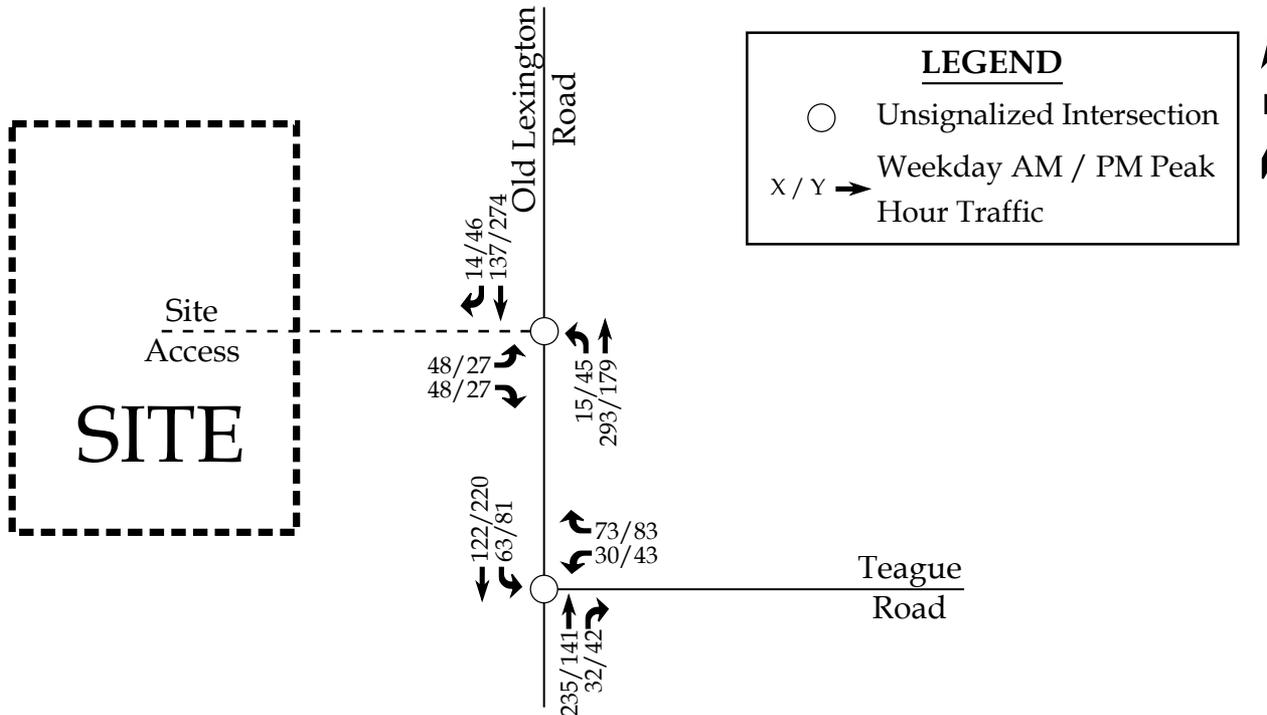


**LEGEND**

- Unsignalized Intersection
- X / Y → Weekday AM / PM Peak Hour Site Trips



<p>Moving forward.</p> <p><b>RKA</b> RAMEY KEMP ASSOCIATES</p>	<p>MG Old Lexington Road Winston Salem, NC</p>	<p>Site Trip Assignment</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 7</p>



**LEGEND**

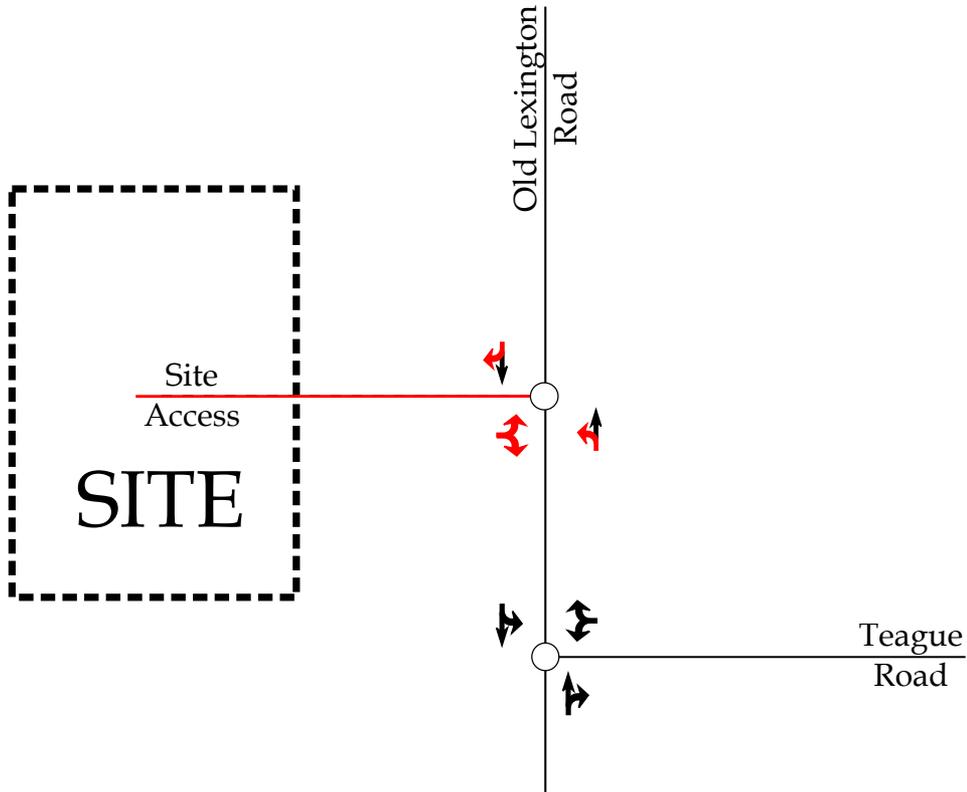
- Unsignalized Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic



<p>Moving forward.</p> <p><b>RKA</b> RAMEY KEMP ASSOCIATES</p>	<p>MG Old Lexington Road Winston Salem, NC</p>	<p>2026 Build Peak Hour Traffic</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 8</p>

**LEGEND**

- Unsignalized Intersection
- ➔ Existing Lane
- ➔ Improvement by Developer



Moving forward.



MG Old Lexington Road  
Winston Salem, NC

Recommended Lane  
Configurations

Scale: Not to Scale | Figure 9

# **TRAFFIC COUNT DATA**

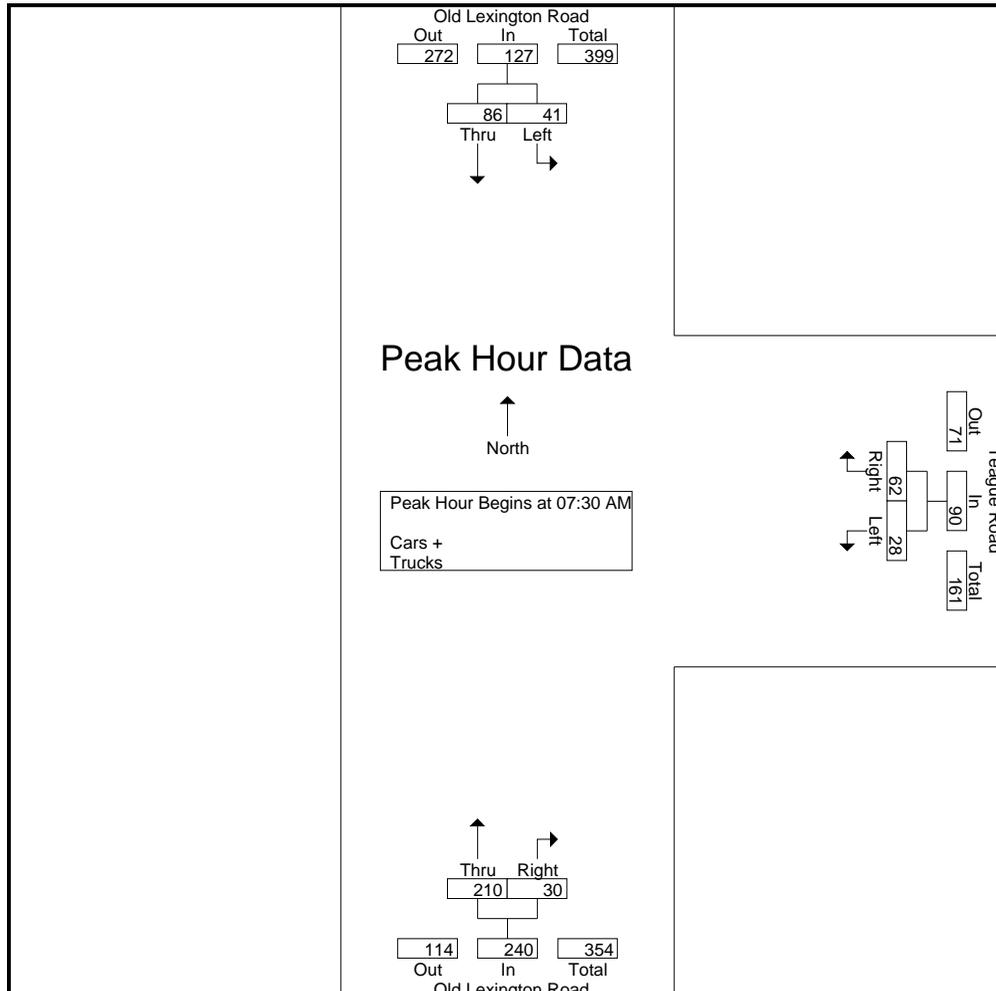




TRAFFIC DATA COLLECTION

File Name : Winston-Salem(Old lexington and Teague) AM Peak  
 Site Code :  
 Start Date : 9/8/2021  
 Page No : 2

Start Time	Old Lexington Road Southbound			Teague Road Westbound			Old Lexington Road Northbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	25	13	38	14	7	21	13	73	86	145
07:45 AM	23	15	38	22	7	29	5	58	63	130
08:00 AM	18	4	22	14	6	20	3	40	43	85
08:15 AM	20	9	29	12	8	20	9	39	48	97
Total Volume	86	41	127	62	28	90	30	210	240	457
% App. Total	67.7	32.3		68.9	31.1		12.5	87.5		
PHF	.860	.683	.836	.705	.875	.776	.577	.719	.698	.788



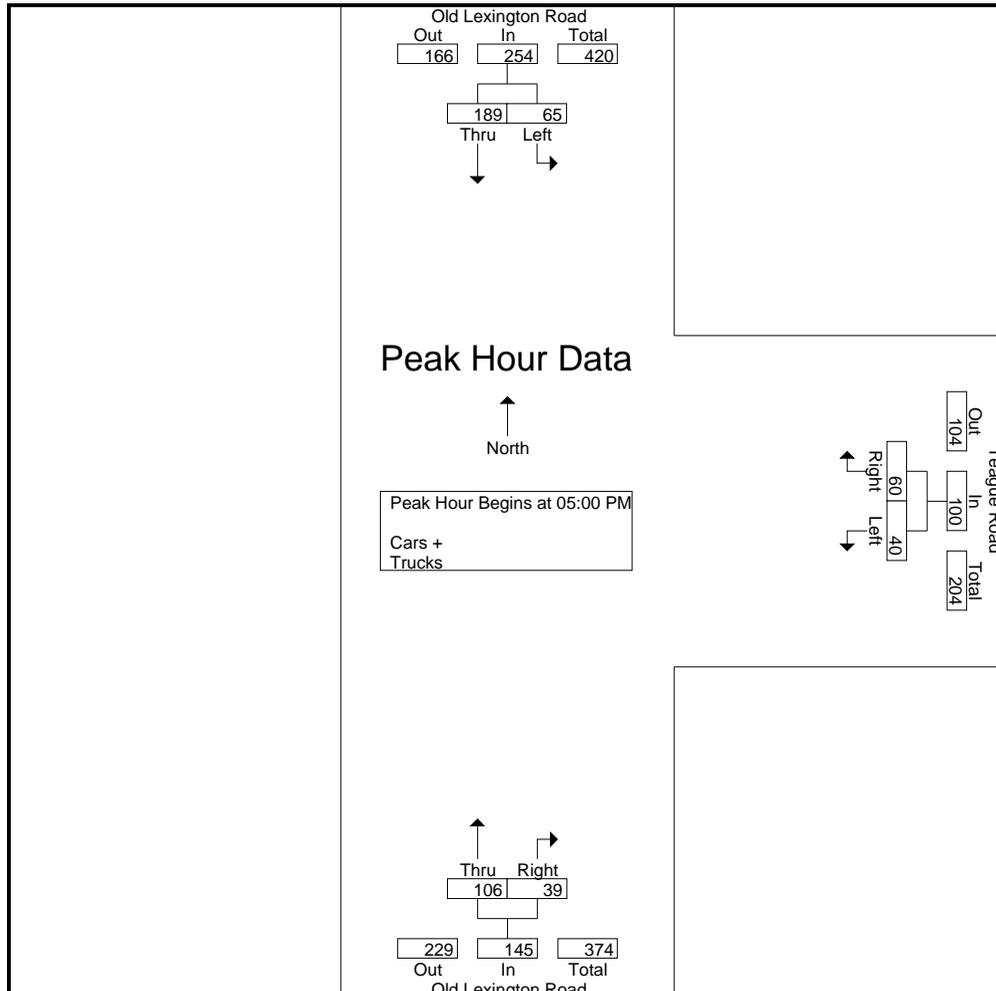




TRAFFIC DATA COLLECTION

File Name : Winston-Salem(Old lexington and Teague) PM Peak  
 Site Code :  
 Start Date : 9/8/2021  
 Page No : 2

Start Time	Old Lexington Road Southbound			Teague Road Westbound			Old Lexington Road Northbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	49	24	73	15	9	24	8	27	35	132
05:15 PM	47	21	68	12	10	22	13	25	38	128
05:30 PM	48	11	59	18	13	31	10	17	27	117
05:45 PM	45	9	54	15	8	23	8	37	45	122
Total Volume	189	65	254	60	40	100	39	106	145	499
% App. Total	74.4	25.6		60	40		26.9	73.1		
PHF	.964	.677	.870	.833	.769	.806	.750	.716	.806	.945



# **SYNCHRO CAPACITY ANALYSIS REPORTS**

HCM 6th TWSC  
1: Old Lexington Road & Teague Road

2021 Existing  
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	28	62	210	30	41	86
Future Vol, veh/h	28	62	210	30	41	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	69	233	33	46	96

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	438	250	0	0	266	0
Stage 1	250	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	576	789	-	-	1298	-
Stage 1	792	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	555	789	-	-	1298	-
Mov Cap-2 Maneuver	555	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1298
HCM Lane V/C Ratio	-	-	0.143	0.035
HCM Control Delay (s)	-	-	11	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

HCM 6th TWSC  
1: Old Lexington Road & Teague Road

2021 Existing  
Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	60	106	39	65	189
Future Vol, veh/h	40	60	106	39	65	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	67	118	43	72	210

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	494	140	0	0	161	0
Stage 1	140	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	535	908	-	-	1418	-
Stage 1	887	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	505	908	-	-	1418	-
Mov Cap-2 Maneuver	505	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	688	1418
HCM Lane V/C Ratio	-	-	0.161	0.051
HCM Control Delay (s)	-	-	11.2	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	67	226	32	44	93
Future Vol, veh/h	30	67	226	32	44	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	74	251	36	49	103

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	470	269	0	0	287
Stage 1	269	-	-	-	-
Stage 2	201	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	552	770	-	-	1275
Stage 1	776	-	-	-	-
Stage 2	833	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	529	770	-	-	1275
Mov Cap-2 Maneuver	529	-	-	-	-
Stage 1	776	-	-	-	-
Stage 2	799	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	675	1275
HCM Lane V/C Ratio	-	-	0.16	0.038
HCM Control Delay (s)	-	-	11.3	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	65	114	42	70	204
Future Vol, veh/h	43	65	114	42	70	204
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	72	127	47	78	227

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	534	151	0	0	174	0
Stage 1	151	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	507	895	-	-	1403	-
Stage 1	877	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	475	895	-	-	1403	-
Mov Cap-2 Maneuver	475	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	662	1403
HCM Lane V/C Ratio	-	-	0.181	0.055
HCM Control Delay (s)	-	-	11.6	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.2

HCM 6th TWSC  
 1: Old Lexington Road & Teague Road

2026 Build  
 Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	73	235	32	63	122
Future Vol, veh/h	30	73	235	32	63	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	81	261	36	70	136

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	555	279	0	0	297	0
Stage 1	279	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	493	760	-	-	1264	-
Stage 1	768	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	463	760	-	-	1264	-
Mov Cap-2 Maneuver	463	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1264
HCM Lane V/C Ratio	-	-	0.179	0.055
HCM Control Delay (s)	-	-	11.8	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2

HCM 6th TWSC  
2: Old Lexington Road & Site Access

2026 Build  
Timing Plan: AM Peak Hour

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	48	48	15	293	137	14
Future Vol, veh/h	48	48	15	293	137	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	53	17	326	152	16

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	520	160	168	0	0
Stage 1	160	-	-	-	-
Stage 2	360	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	516	885	1410	-	-
Stage 1	869	-	-	-	-
Stage 2	706	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	508	885	1410	-	-
Mov Cap-2 Maneuver	508	-	-	-	-
Stage 1	856	-	-	-	-
Stage 2	706	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1410	-	645	-	-
HCM Lane V/C Ratio	0.012	-	0.165	-	-
HCM Control Delay (s)	7.6	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

HCM 6th TWSC  
 1: Old Lexington Road & Teague Road

2026 Build  
 Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	43	83	141	42	81	220
Future Vol, veh/h	43	83	141	42	81	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	92	157	47	90	244

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	605	181	0	0	204	0
Stage 1	181	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	461	862	-	-	1368	-
Stage 1	850	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	426	862	-	-	1368	-
Mov Cap-2 Maneuver	426	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	639	1368
HCM Lane V/C Ratio	-	-	0.219	0.066
HCM Control Delay (s)	-	-	12.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.2

HCM 6th TWSC  
2: Old Lexington Road & Site Access

2026 Build  
Timing Plan: PM Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	27	27	45	179	274	46
Future Vol, veh/h	27	27	45	179	274	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	30	50	199	304	51

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	629	330	355	0	-	0
Stage 1	330	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	446	712	1204	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	425	712	1204	-	-	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	752	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1204	-	532	-	-
HCM Lane V/C Ratio	0.042	-	0.113	-	-
HCM Control Delay (s)	8.1	0	12.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

# **SIMTRAFFIC QUEUING ANALYSIS REPORTS**

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Intersection: 1: Old Lexington Road & Teague Road

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Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	60	42
Average Queue (ft)	22	8
95th Queue (ft)	43	31
Link Distance (ft)	1389	227
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Network Summary

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Network wide Queuing Penalty: 0

Intersection: 1: Old Lexington Road & Teague Road

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	56	4	42
Average Queue (ft)	20	0	9
95th Queue (ft)	39	4	32
Link Distance (ft)	1389	692	227
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Old Lexington Road & Teague Road

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	55	2	56
Average Queue (ft)	22	0	14
95th Queue (ft)	40	2	42
Link Distance (ft)	1389	692	234
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Old Lexington Road & Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	77	34
Average Queue (ft)	37	2
95th Queue (ft)	63	16
Link Distance (ft)	700	234
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0
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Intersection: 1: Old Lexington Road & Teague Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	77	56
Average Queue (ft)	26	13
95th Queue (ft)	53	43
Link Distance (ft)	1389	234
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Old Lexington Road & Site Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	71	60
Average Queue (ft)	29	12
95th Queue (ft)	57	41
Link Distance (ft)	700	234
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0
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